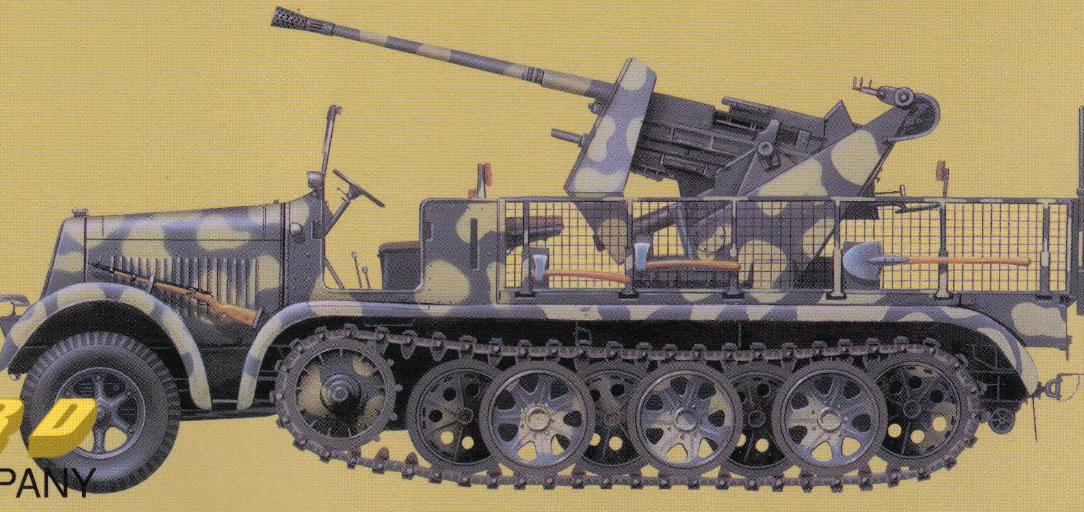
ARMOR AT WAR SERIES

7034

Panzer-Division 1935-1945

(2) The Eastern Front 1941-1943

Robert Michulec



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(2) The Eastern Front 1941-1943

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Introduction

The assault on Russia in June 1941 was to be the crossing of the Rubicon for the German Army and, in particular, the Panzerwaffe.

During the twelve months leading up to this event, the Germans had carefully built up their assault forces utilizing all available reserves and resources. Plans for modernization of the Panzerwaffe were delayed and all efforts were directed to double the number of Panzer-Divisions. Even so, the logistic system of the Wehrmacht was not equal to the task of conquering Russia with the available forces, and the carefully prepared and trained Panzer-Divisions had suffered a great blow by the end of 1941. A casualty rate of approximately twenty percent after six months of continuous fighting was not as great as could have been expected, but problems with transport and weather as well as the production and distribution of new weapons weakened them and, in extreme cases, some were effectively destroyed by November 1941. This was partly due to Hitler's refusal to send necessary replacements even though they were available. By July 1, 150 tanks had been lost with another 300 out of action due to damage or breakdown. As losses mounted, he was forced to reconsider. On July 2, there were 311 replacements available for immediate issue, 70 Pz.Kpfw.38(t), 121 Pz.Kpfw.III and 30 Pz.Kpfw.IV but only 155 were released, all the Pz.Kpfw.38(t), 70 Pz.Kpfw.III and 15 Pz.Kpfw.IV. At the same time, only 4 Pz.Kpfw.III were sent to North Africa to replace their losses. Even though the need was urgent, only 90 had reached their assigned units at the end of August.

In the meantime, another 797 tanks had been lost, with a similar number damaged, by the end of July. Almost one-third of the tank strength available to the Panzerwaffe on June 22 had been lost in the first 40 days of fighting. In August the situation turned critical when over half the Panzerwaffe in the east was unable to take part in offensive action. Tank strength was down to fifty percent necessitating the OKH to order the air transport of 350 replacement engines for Pz.Kpfw.III against Hitler's orders.

A further 571 losses were reported by the end of August bringing the available strength to twenty-five percent of that of June 22. Another twenty-five percent were repairable while the rest were total write-offs, having either been burned out or blown up. Another batch of replacements was authorized in the middle of September. Of 517 tanks produced in July and August, only 250 Pz.Kpfw.III and 96 Pz.Kpfw.IV were issued. As well, the 2. and 5.Panzer-Divisions, equipped with another 380 tanks that had originally been prepared for operations in the Middle East, were also transferred to the east. This provided some temporary relief. By December 22, 1941 though, only 405 tanks were operational during the assault on Moscow with 780 out of action but repairable and which were subsequently lost during the retreat that followed. By the end of the year, the Germans reported the loss of 2,735 tanks of the 3,266 that had been sent into Russia on June 22 plus 847 replacements sent after. Not even 1,400 operational and damaged tanks remained of the once powerful and proud Panzerwaffe.

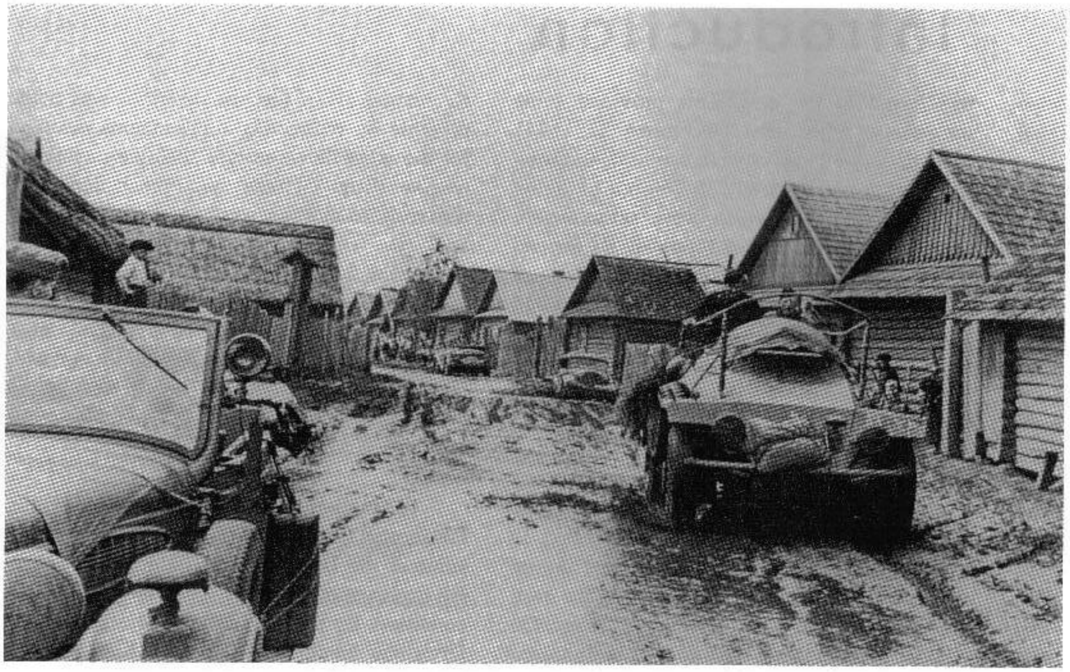
While most of the first twenty Panzer-Divisions were being bled in Russia, new Panzer-Divisions were still being created in accordance with earlier plans, however due to the attrition of men and equipment in the east, the number was reduced from ten to seven. On August 1, 5.leichte-Division was reorganized into 21.Panzer-Division. Two new ones, the 22. and 23.Panzer-Divisions, were established on September 25. As the final catastrophe for the Panzerwaffe unfolded in front of Moscow, OKW issued the order for 1.Kavallerie-Division to be reorganized as 24.Panzer-Division. The new 25.Panzer-Division was formed on February 28, 1942. Equipping the new divisions occurred slowly because of the huge losses on the Eastern Front and the lack of experienced Panzer crew required to form the cadres of the new divisions. By the beginning of the German summer offensive of 1942 in Russia, not all were fully equipped for action. Moreover, some of the older units did not have their losses from the Soviet winter offensive replaced and were not ready for full scale operations either. The depleted divisions were relegated to H.Gr.Nord and H.Gr.Mitte where they acted as defensive formations. Of these, 1., 4., 12., 18., and 19.Panzer-Division had a strength of 48-58 tanks available while only 2., 5., 8., 17., and 20.Panzer-Division with 68-103 tanks could be considered as well equipped. The best equipped divisions were concentrated in H.Gr.Sud for the attack into the Caucasus. Among them were the three newly created divisions, 22., 23., and 24.Panzer-Division with a combined strength of 495 tanks, 181 of which were concentrated in 24.Panzer-Division. Even so, 22.Panzer-Division was still equipped with 114 of the obsolete Pz.Kpfw.38(t).

Another two Panzer-Divisions were created, 26.Panzer-Division on September 15 and 27.Panzer-Division on October 2, 1942 to help bolster German strength on the Eastern Front. However, in the first month of 1943, 14., 16., and 24.Panzer-Division would cease to exist, lost in the cauldron of Stalingrad. Within days of their destruction the process of reforming would begin. In Tunisia, 10., 15., and 21.Panzer-Division were lost with the surrender of German forces in North Africa. Only one of them, 21.Panzer-Division, would be reformed. Recreating all of the lost divisions was made possible by redirecting replacements destined for the other divisions and absorbing available reserves from German and French depots. It was realized that this would still not be enough and two of the weakest divisions were disbanded, 27.Panzer-Division in February and 22.Panzer-Division in April, and their personnel and equipment reassigned to other divisions. And so, by the beginning of 1943, eight Panzer-Divisions had been destroyed and the German Army was only able to replace four of them.

Throughout the spring of 1943, the Panzerwaffe built up its strength and by the summer the Germans still fielded 24 Panzer-Divisions, though many were in a weakened condition. By the summer of 1943, 21 Panzer-Divisions (including the four SS and two Wehrmacht Panzer-Grenadier-Divisions) were available for offensive action for Operation 'Citadel'. On the whole Eastern Front, only one other Panzer-Division was employed, 13.Panzer-Division with 71 tanks. At the same time, four Panzer-Divisions were concentrated in Sicily and Italy, five Panzer-Divisions, including three new SS-Panzer-Divisions, were stationed in France and one, 1.Panzer-Division, was in the Balkans. Despite the losses of the previous year, the Panzerwaffe was able to field 32 Panzer-Divisions during the summer of 1943 although only half of them were up to strength.

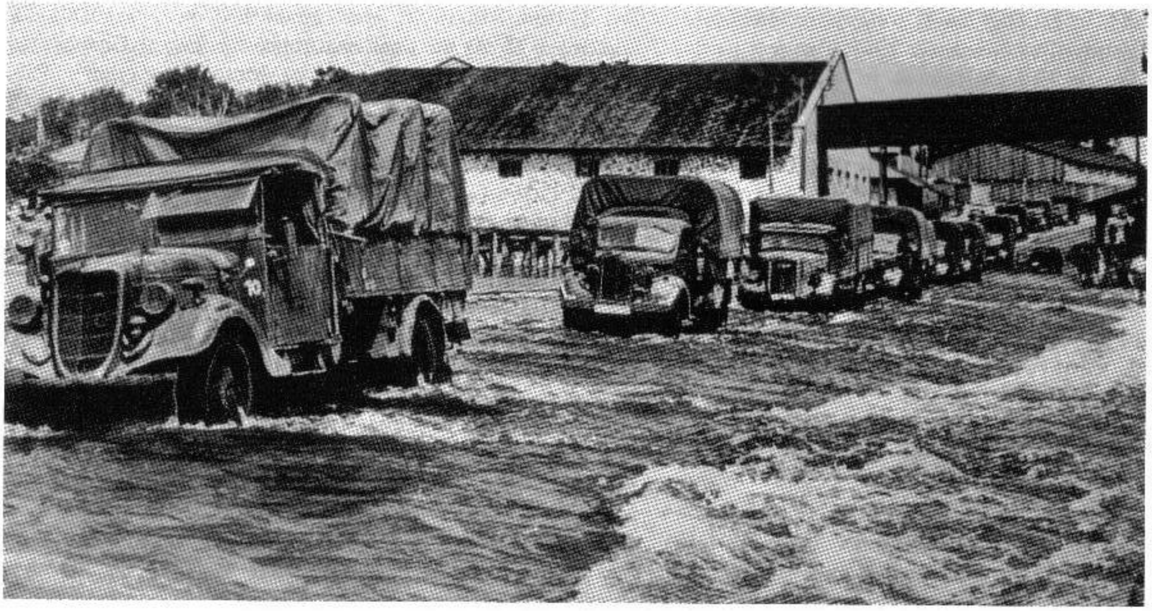
For Operation 'Citadel', the Germans were able to collect in 17 divisions and 2 brigades no less than 1,715 tanks and 147 StuG.III assault guns, which since early spring, had begun to be employed as standard armament in some of the Panzer-Regiments. It was a great achievement, but the divisions were not as strong as they should be. Each division averaged 98 tanks and self-propelled guns, not including self-propelled anti-tank guns. Each division was weaker than a Panzer-Division of 1941 or 1942, so it is not surprising that the Germans were unable to break through the Soviet defensive lines at Kursk and in the northern sector, were even pushed back.

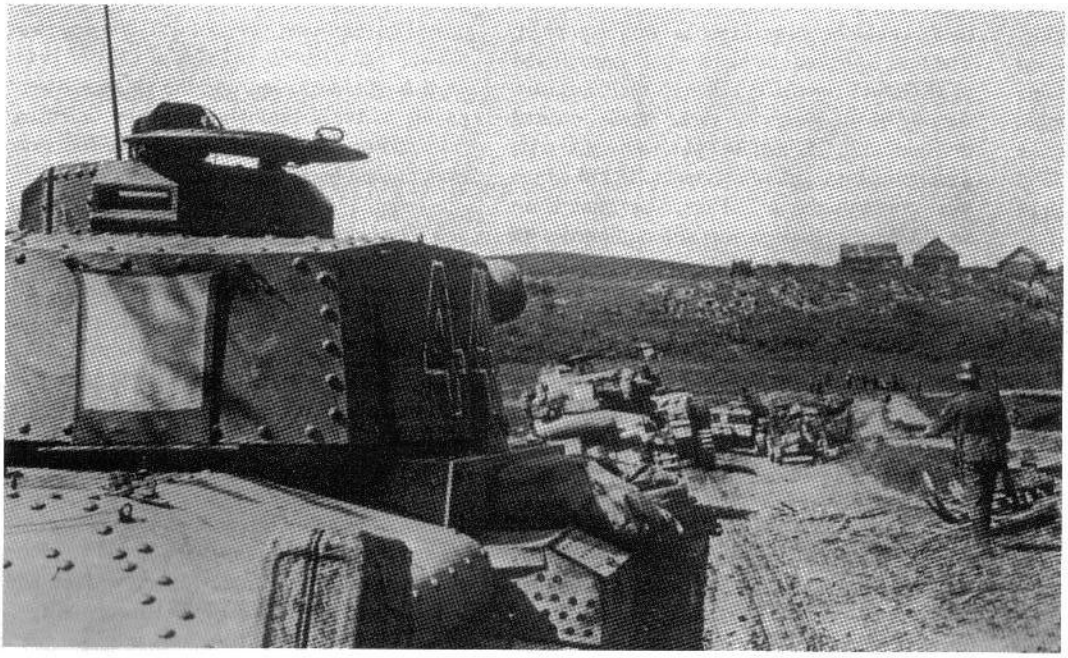
The battle for Kursk was the swan song of the German Panzerwaffe. The dash and elan of the 1940-41 period was lost and never regained. Despite the high quality of the men and improved armament, the Panzerwaffe found itself in a battle of defense against the Allies on two fronts and preparing for the coming battles in France. The great successes achieved during the battles for Poland, France and the invasion of the Soviet Union would not be repeated. Losses suffered in the continuous battles on the Eastern Front in the remainder of 1943 and the beginning of 1944 would further weaken and reduce the effectiveness of the Panzerwaffe.



Vehicles of a divisional reconnaissance troop struggle down a muddy road through a Russian village in July, 1941. The armored car on the right is an early version of the kleine Panzerfunkwagen (Sd.Kfz.261). This one is a standard Sd.Kfz.221 that has been fitted with a frame antenna and additional radio equipment and still carries the standard MG34 armament. Later versions were built on the chassis of the Sd.Kfz.223 and were unarmed. Markings on the left mudguard indicate it belongs to 8.Panzer-Division. The vehicle on the left is a BMW 326 two-door convertible, one of many types of civilian cars utilized by the Wehrmacht.

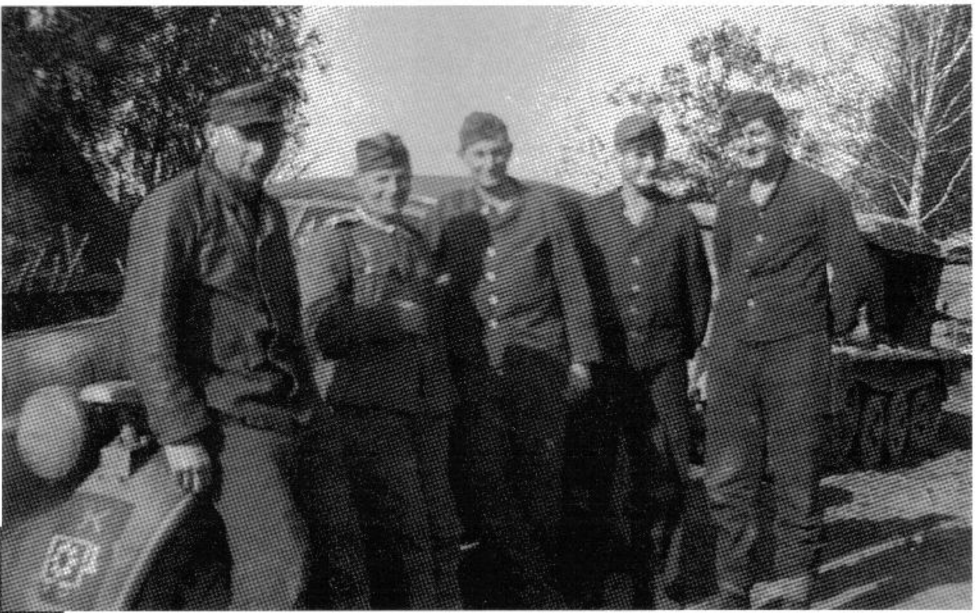
A long column of supply trucks cross a flooded road somewhere in Russia in September, 1941. The column is composed of many different types of trucks with a variety of markings. The leading truck is an open cab Ford V8-51 3-ton. The third truck in line is easily identifiable as an Opel Blitz.

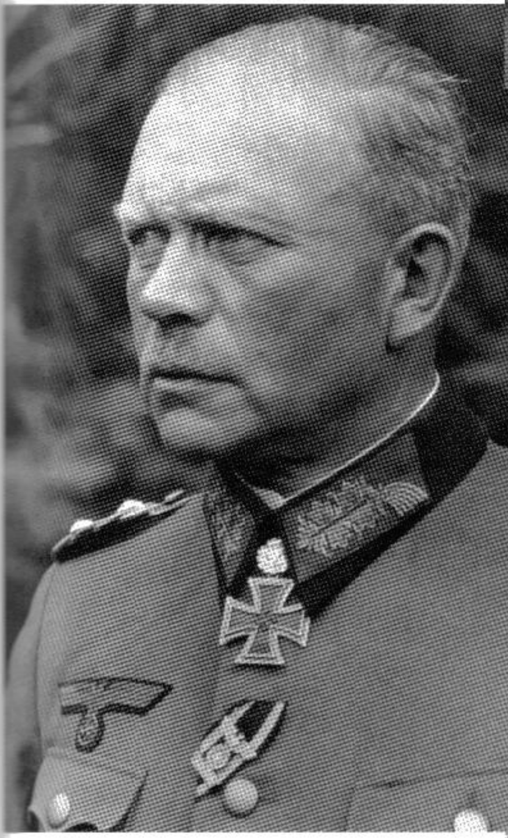




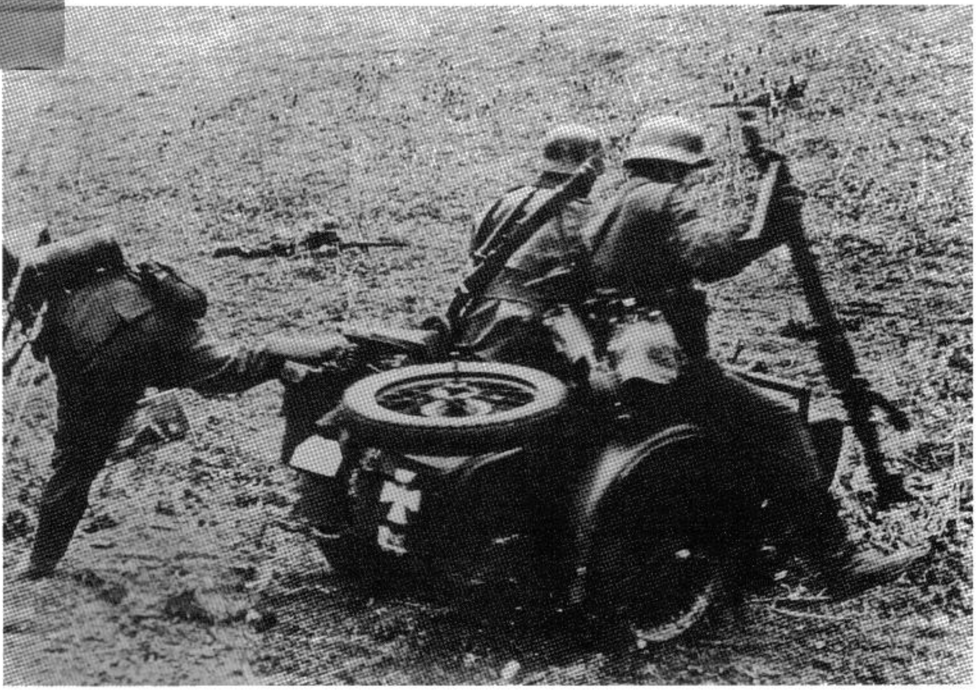
Two Pz.Kpfw.38(t) Ausf.E-G follow two Pz.Kpfw.III Ausf.J down a dusty Russian road in August, 1941. The divisional sign of 7.Panzer-Division appears in yellow on the rear of the turret of the nearest tank, however, as they did not report any Pz.Kpfw.III on their table of organization during this time, the two Pz.Kpfw.III probably belong to another division. Although 7.Panzer-Division fought as part of XXXIX.Pz.K. along with 20.Panzer-Division under H.Gr.Mitte, they had no Pz.Kpfw.III either and so their ownership will remain a mystery. The large tactical numbers painted on the side of the turret are red with a white outline and indicate this is a tank in the fourth platoon of the fourth company. Of interest is the colored cloth panel hanging on the rear of the turret, the meaning of which is unknown.

Soldiers of a rear echelon troop pose for a photo with their vehicles in Russia. The tactical sign, painted in white on a dark gray patch on the mudguard of the car, is that of the first platoon of a motorized maintenance company. The yellow 'K' painted above may indicate the unit belongs to Panzer-Gruppe von Kleist. An Sd.Kfz.10 half-track can be seen to the right.

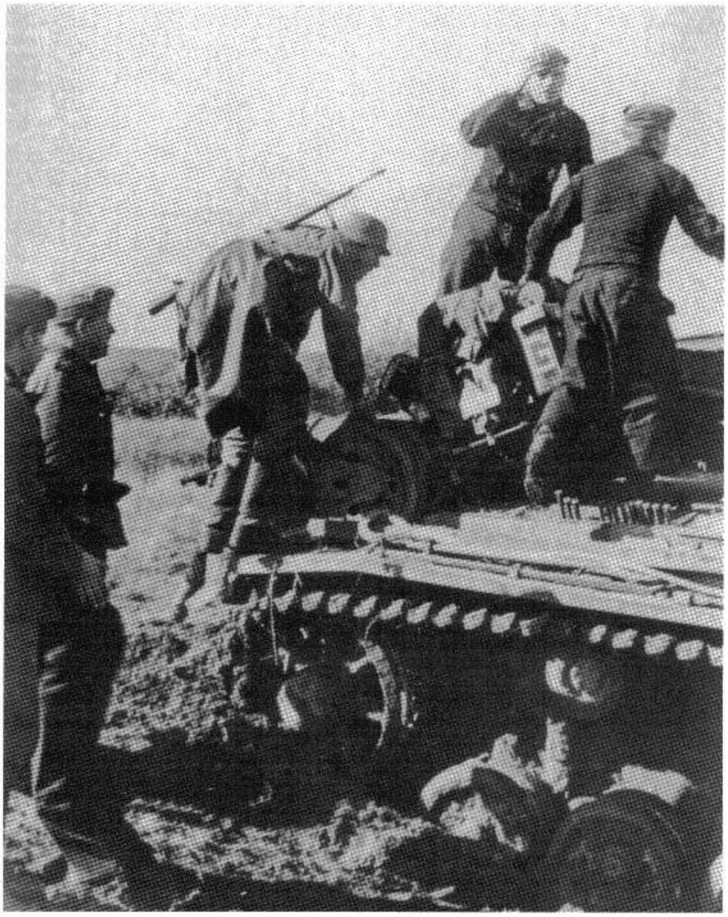




Probably the most famous commander of the Panzerwaffe, Generaloberst Heinz Guderian, commanded 2.Panzer-Armee from the beginning of the war until December 25, 1941, when he was dismissed by Hitler over a conflict with the new Army Group Commander, von Kluge. He was instrumental in the creation of the German armored forces during the 1930s and was responsible for developing many of the doctrines that led to the astounding success of the Panzer-Divisions in the early war years. One of the few high-ranking German officers not prosecuted for war crimes, Guderian died on May 14, 1954.

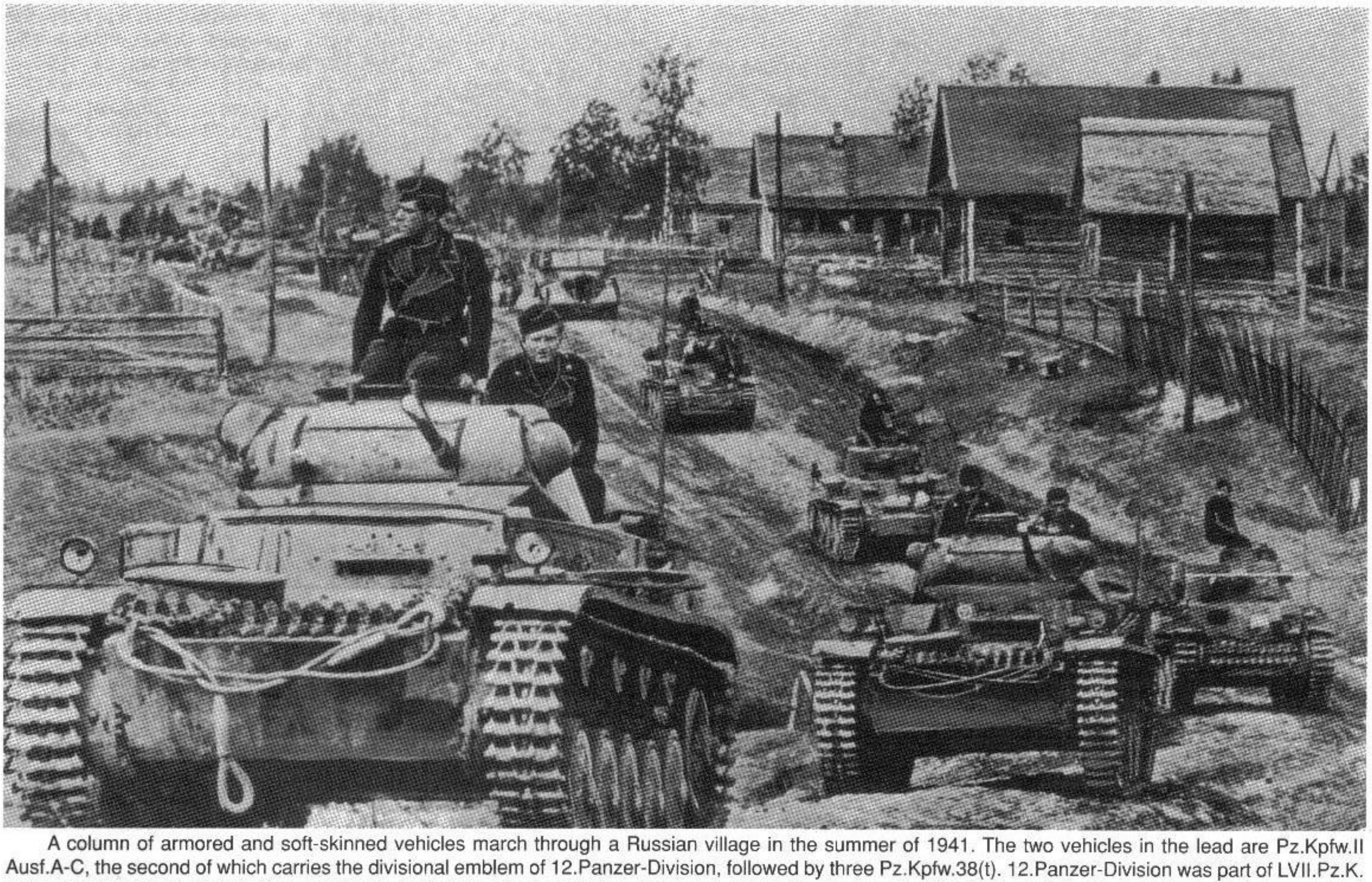


Soldiers of a motorcycle squad leap into action from their Zündapp KS600 motorcycle combination in the summer of 1941. The divisional emblem of 28.Jäger-Division, a white Maltese style cross, has been painted in white on the rear of the sidecar above the tactical sign for a motorized anti-tank unit. The sidecar has been equipped with a heavy bar to mount the MG34, allowing it to be fired while the motorcycle was in motion.

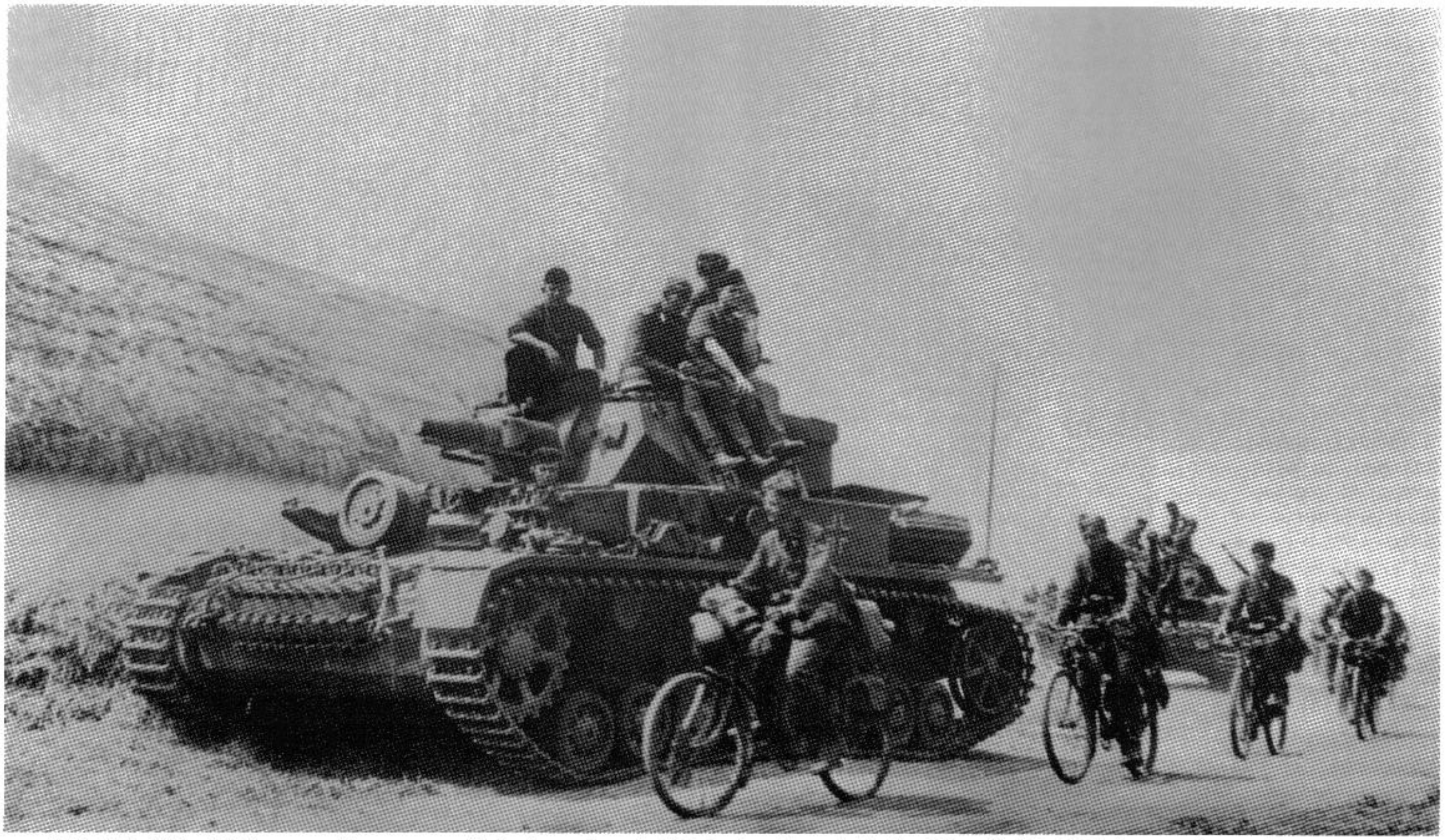


A long column of German motorcycles, cross-country cars and transport travel down a dirt road in Russia in August 1941. Scenes like this were possible only due to overwhelming German air superiority. Later in the war, travel in columns like this, would be extremely risky with increased Soviet air activity. The vehicle bringing up the rear is a Phanomen-Granit 25H Kfz.31 ambulance.

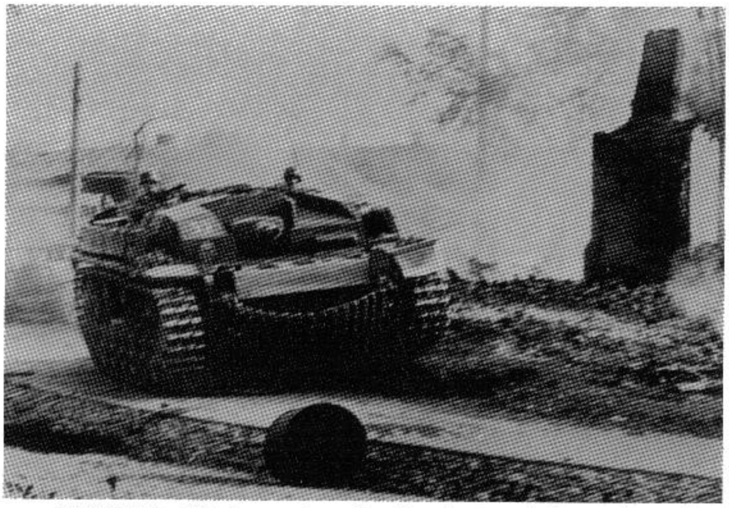
An NSU type 251 OS motorcycle is loaded onto the engine deck of a Pz.Kpfw.III during a period of muddy weather conditions in Russia, late summer 1941. The white letter 'G' painted on the dispatch case indicates it belongs to one of the five Panzer-Divisions under the command of Panzer-Gruppe Guderian.



A column of armored and soft-skinned vehicles march through a Russian village in the summer of 1941. The two vehicles in the lead are Pz.Kpfw.II Ausf.A-C, the second of which carries the divisional emblem of 12.Panzer-Division, followed by three Pz.Kpfw.38(t). 12.Panzer-Division was part of LVII.Pz.K. which fought with Pz.Gr.3, taking part in the battles for Minsk and then Smolensk. Up to September, the division had lost 101 tanks including almost all of their Pz.Kpfw.I and half their Pz.Kpfw.38(t), which formed the majority of their strength. On the other hand, only 4 Pz.Kpfw.II and 8 Pz.Kpfw.IV were lost during the same time. Unusually, the leading Pz.Kpfw.II seems to have been painted in a very light color or possibly camouflaged with mud.



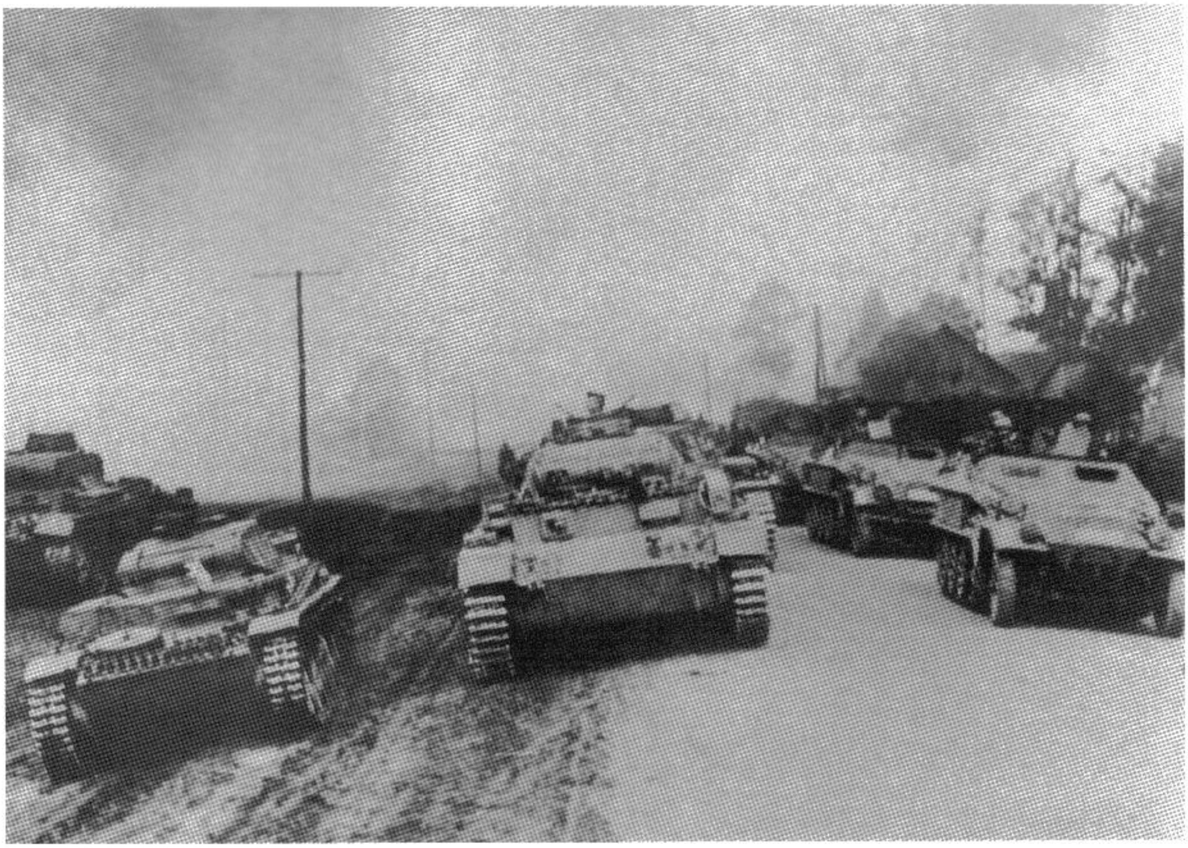
A Pz.Kpfw.IV Ausf.F1 is passed by a group of infantry equipped with bicycles. Armed with the 7.5cm KwK37 L/24, it was only capable of dealing with the Soviet KV-1 and T-34 at short ranges. The introduction of the Pz.Kpfw.IV Ausf.F2, seen behind, armed with the 7.5cm KwK40 L/43, finally gave the Germans a technical superiority. Interestingly, the antenna has been field mounted on the rear of the left mudguard.

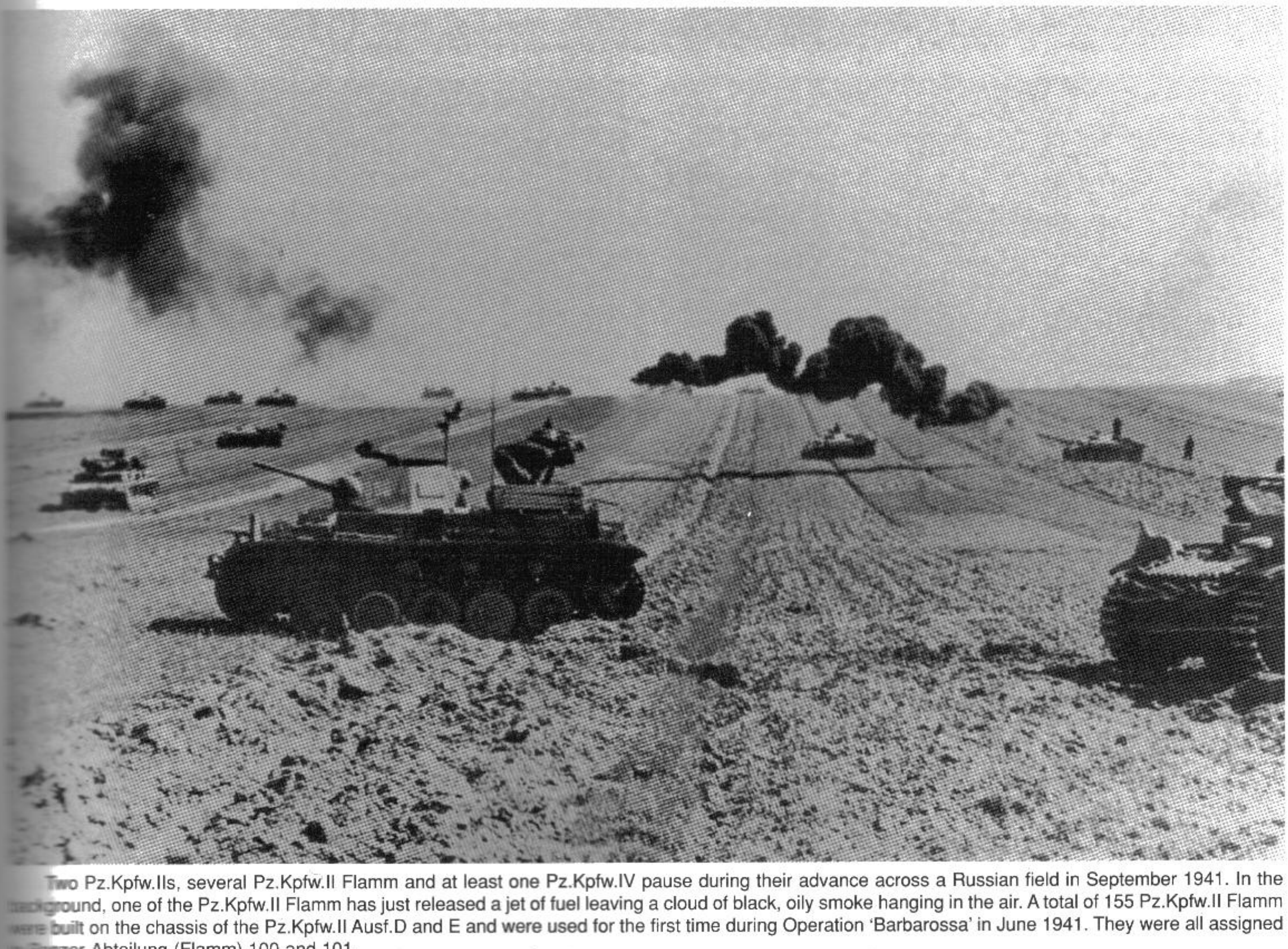


A StuG.III Ausf.B charges through a Russian town in September, 1941. It is marked with the well known 'Totenkopf' emblem of StuG.Abt.192. The emblems were painted in red for the first battery, yellow for the second and green for the third, on a black background. A tactical number '33' is painted in white above it. White lines are painted on each side of the front and rear mudguards to make the vehicle easier to see during night marches.

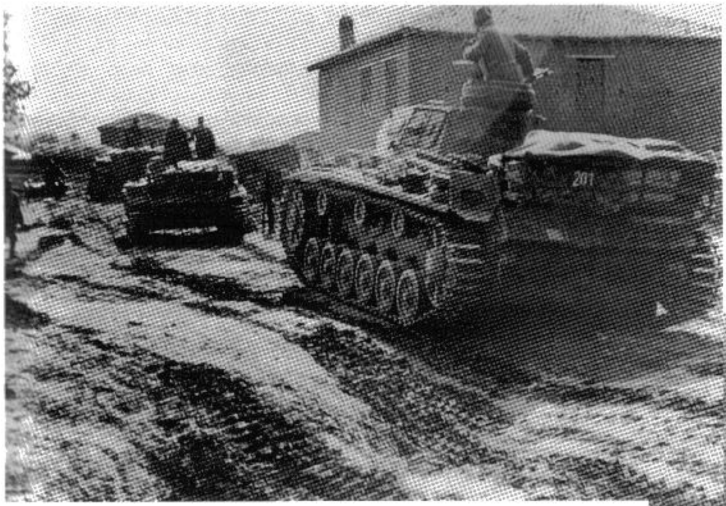
A wounded German soldier receives medical treatment behind the protection of an Sd.Kfz.250 half-track during the battle for Kiev in September 1941. Panzer-Gruppe Guderian, advancing to the north, and Panzer-Gruppe von Kleist, advancing to the south, encircled the city of Kiev trapping four Soviet armies totaling almost 50 divisions. Almost 677,000 Soviet troops were in the pocket, 150,000 of which escaped before the Germans were able to secure their lines.

Leading elements of a Panzer-Regiment and the accompanying Schutzen-Regiment in their Sd.Kfz.251/1 Ausf.B half-tracks, advance through the smoky haze of a burning Russian village in the early autumn of 1941. The tank in the middle of the picture is a Pz.Bef.Wg.III Ausf.E which appears to have had a vision flap installed in the driver's position in place of the standard visor. The vehicle on the extreme left is a Pz.Kpfw.III Ausf.F that has had its 3.7cm main armament replaced with the later 5cm gun with the external mantlet and had additional 30mm armor plates welded or bolted to the front and rear of the hull and superstructure front. Between them is a Pz.Kpfw.II Ausf.A-C. The white letter 'G' of Panzer-Gruppe Guderian can be seen painted on the right mudguards of the half-tracks.

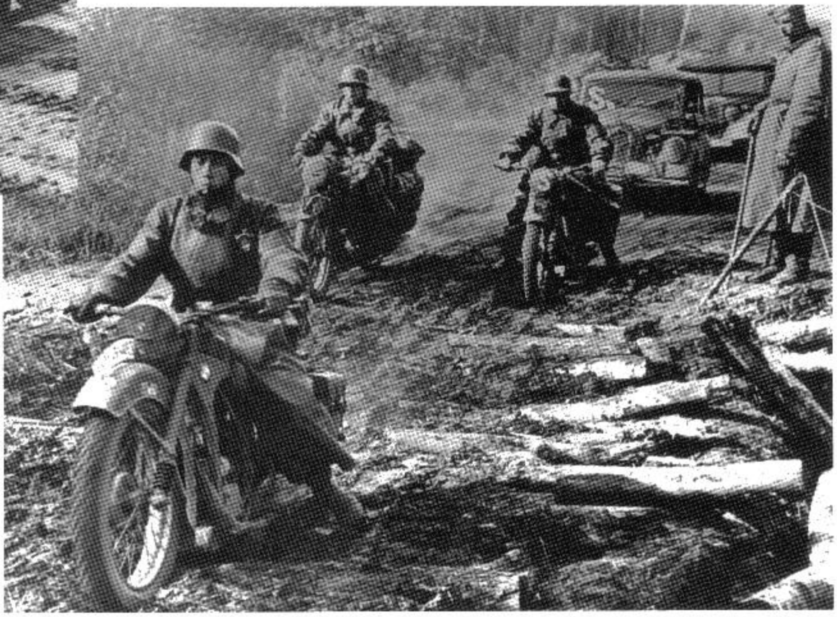




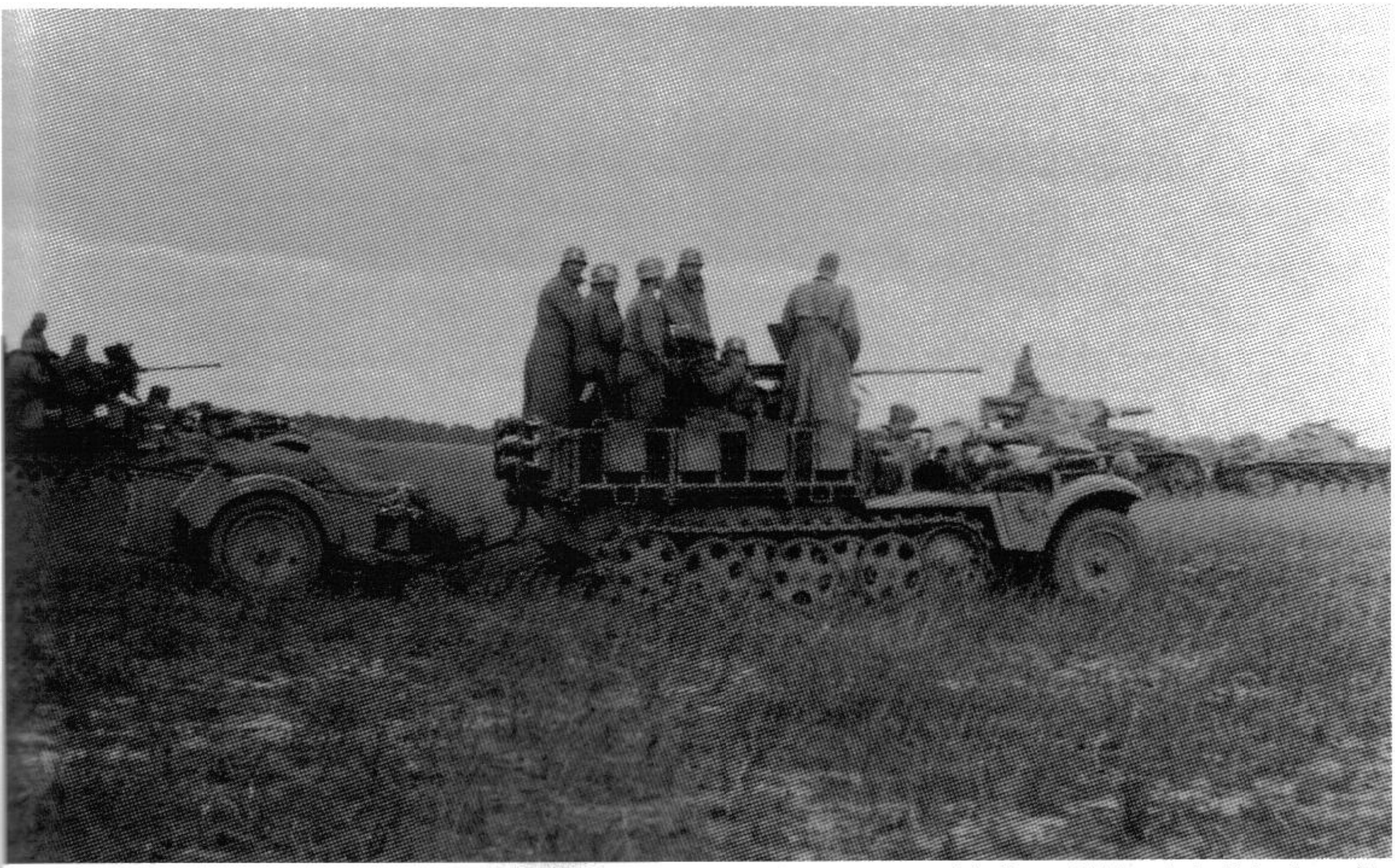
Two Pz.Kpfw.IIs, several Pz.Kpfw.II Flamm and at least one Pz.Kpfw.IV pause during their advance across a Russian field in September 1941. In the background, one of the Pz.Kpfw.II Flamm has just released a jet of fuel leaving a cloud of black, oily smoke hanging in the air. A total of 155 Pz.Kpfw.II Flamm were built on the chassis of the Pz.Kpfw.II Ausf.D and E and were used for the first time during Operation 'Barbarossa' in June 1941. They were all assigned to Panzer-Abteilung (Flamm) 100 and 101.



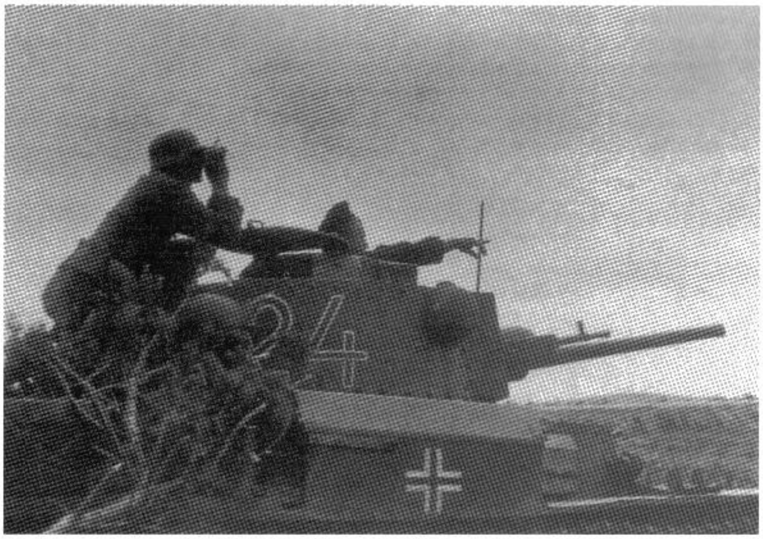
Heavily stowed Pz.Kpfw.IIIs move through a Russian village in the autumn of 1941. The nearest vehicle is an early Pz.Kpfw.III Ausf.G which has been fitted with a late cupola and still retains the early style of tactical numbering, white painted numbers on a black rhomboid shaped metal plate. The tactical sign for a Panzer-Division is painted in white on the rear plate as well with the company number painted beside it.



A trio of motorcyclists on BMW R35 solo machines lead a pair of staff cars across a corduroy road built over a soft patch of ground in the forests west of Moscow in late September, 1941. Motorcycles were utilized in large numbers, not only in the Panzer-Divisions but also in special Kradschutzen battalions and the staffs and other subunits of Infanterie-

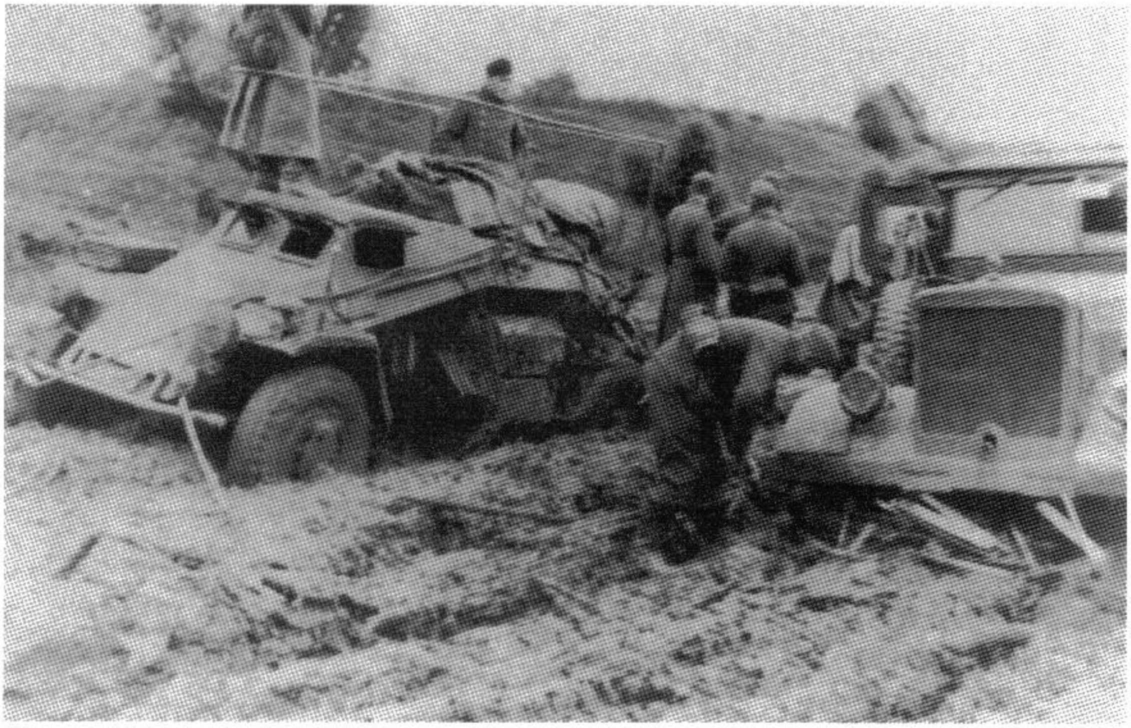


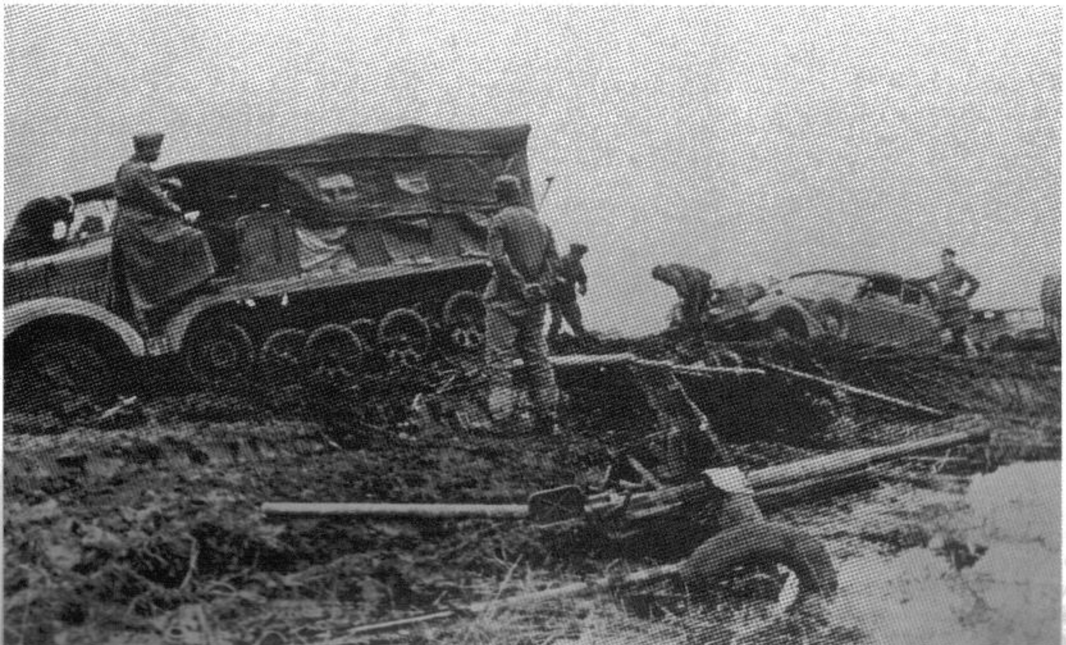
A pair of Sd.Kfz.10/4 half-tracks armed with 2cm FlaK38 anti-aircraft guns provide support to one of the Panzer-Divisions during their advance into Russia. With a crew of 7, space was at a premium, which can be easily seen here. In action, the sides of the gun platform could be folded down to provide additional space for the crew to maneuver around the gun. Magazines for the gun were carried in ready racks on the folding sides of the platform and usually, a single axle trailer was towed, carrying additional ammunition. A Pz.Kpfw.II and a Pz.Kpfw.IV Ausf.D can be seen in the background.



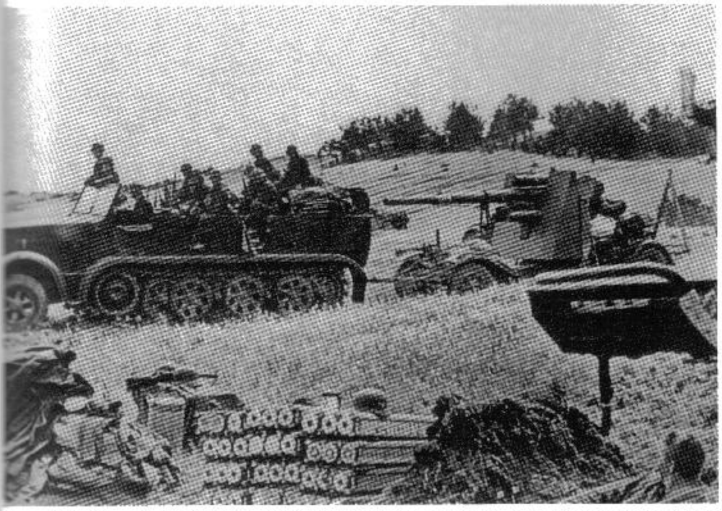
The commander of this Pz.Kpfw.38(t) Ausf.G points out the direction of the enemy to the infantry squad leader on the back of the tank. By this time, the Pz.Kpfw.38 was largely obsolete as a combat vehicle, being able only to deal with the lighter Soviet tanks. It carries a two digit tactical number painted in white outline on the dark gray base. Note the unusual manner in which the '4' has been painted.

A leichte Panzerspähwagen (Fu) (Sd.Kfz.223) and a Borgward 3-ton truck bogged down in a muddy Russian field. Conditions such as this put a severe strain on both men and machines.



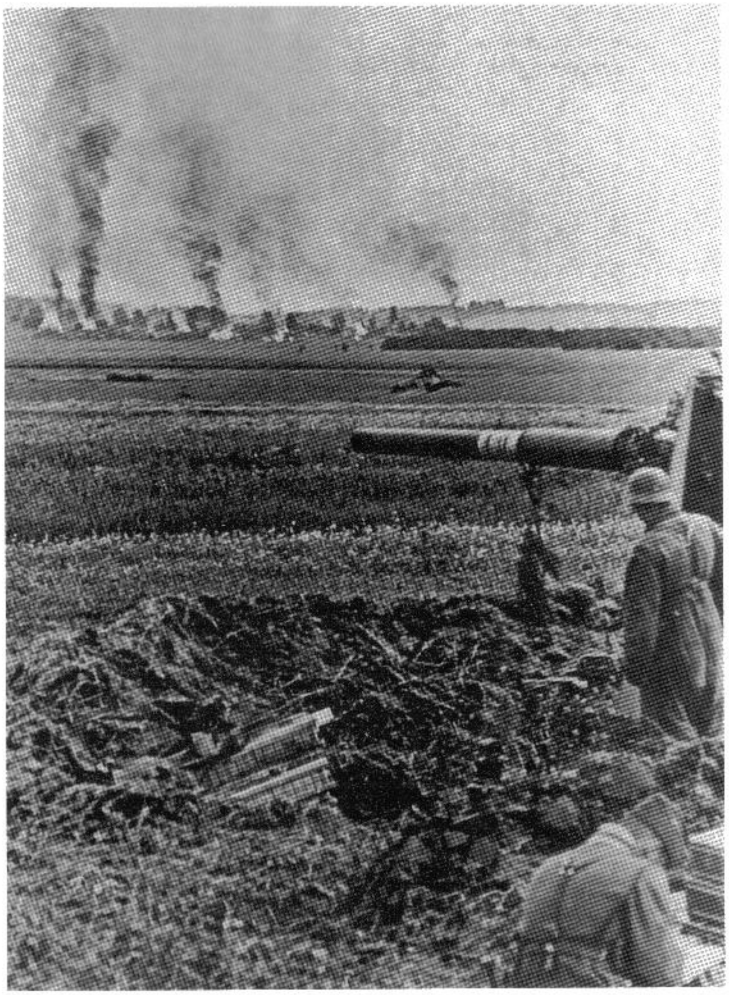


An Sd.Kfz.6 5-ton half-track prime mover being used to tow a staff car bearing a General's rank pennant. Normally, the rank pennant was carried on the right mudguard and the command pennant was carried on the left. When the rank pennant was on the left mudguard, this indicated the officer was not authorized to carry a command pennant. In the foreground is a Soviet 45mm Model 1932 anti-tank gun that has been abandoned by the retreating Russian Army.

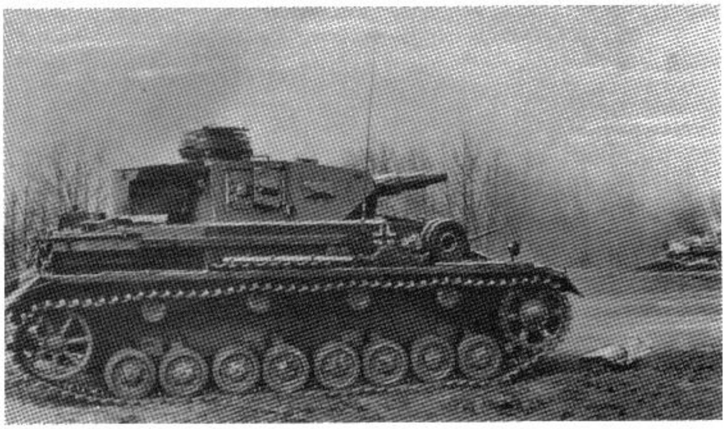


A Luftwaffe Sd.Kfz.7 half-track prime mover tows an 8.8cm FlaK18 into a gun emplacement set up in a Russian field in September 1941. This is obviously an experienced gun crew judging by the number of kill rings painted on the barrel of the gun. The early Sd.Ah.201 was equipped with a rear tow bar, seen here in the raised position, to enable the gun to be maneuvered into a dug-in position from the rear.

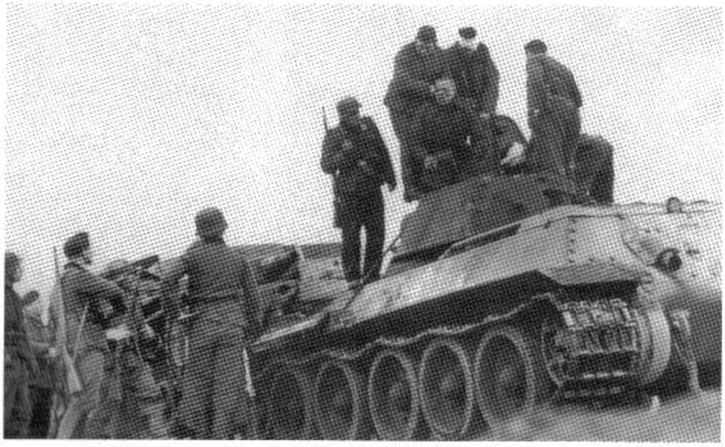
German troops climb aboard a StuG.III Ausf.A-B from an unknown unit in the autumn of 1941. On April 18, 1941, Sturmgeschütz Abteilung were organized with 3 batteries of 6 Sturmgeschütz each plus 1 for the battery commander. This was subsequently revised in November 1942 to add 3 more vehicles to each battery. At this time, their role was still that of self-propelled artillery for infantry support.



An 8.8cm FlaK18 from the same unit fires high explosive rounds at a village occupied by Soviet troops in late September, 1941. Manned by another highly successful crew, this gun has 13 kill rings painted in white around the barrel.

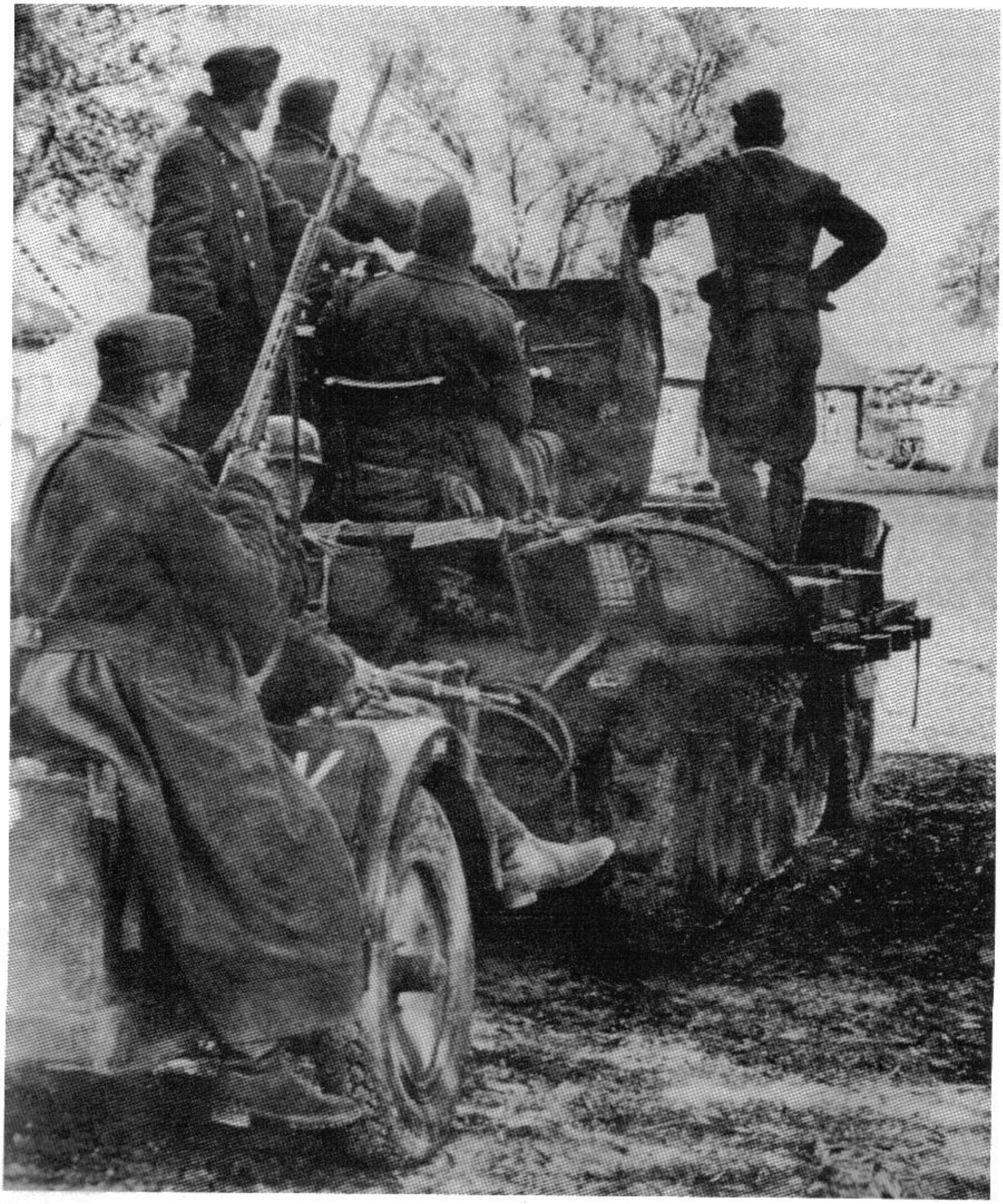


A Pz.Kpfw.IV Ausf.F1 of an unidentified Panzer-Division, engages Soviet troops on the edge of a forest in late autumn, 1941. Quite unusually, the three digit tactical number on the side of the turret, '532', is painted in black with the first two numbers being slightly smaller than the last.



The hapless crew of this T-34/76 Model 1940 are hauled out of their tank by German soldiers after it was rammed by a StuG.III Ausf.A or Ausf.B in the autumn of 1941. After binding their wounds, the crew of the StuG.III used a pry bar to open the turret hatch and force the surrender of the Soviet crew. It would seem that the T-34 must have run out of ammunition.

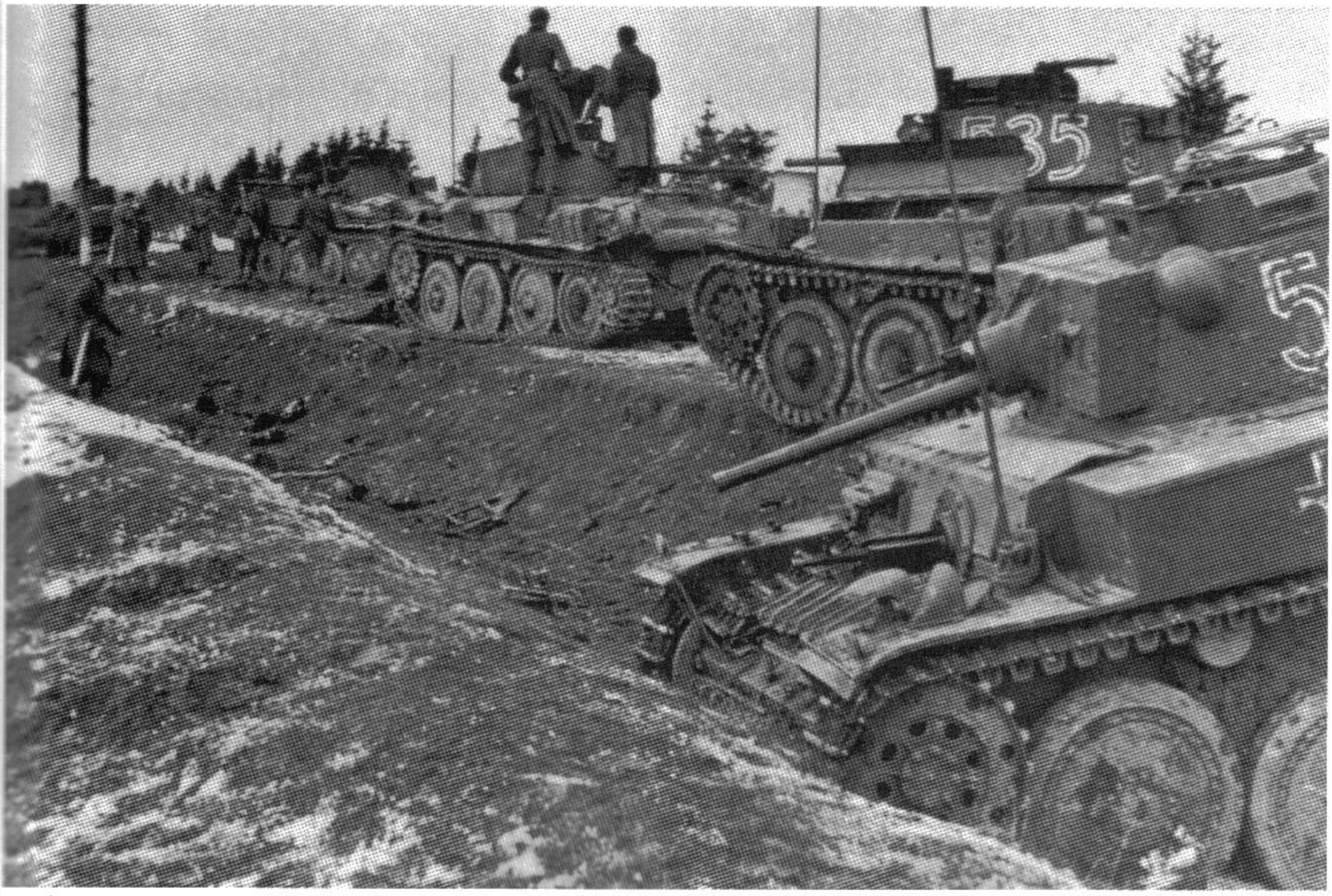
Heavily dressed motorcyclists on a Zündapp KS600 combination lead a column of light tanks in late autumn, 1941. The tank behind them is a Pz.Kpfw.II Ausf.c marked with a white Panzer rhomboid on the front plate, followed by a kl.Pz.Bef.Wg.I Ausf.B.



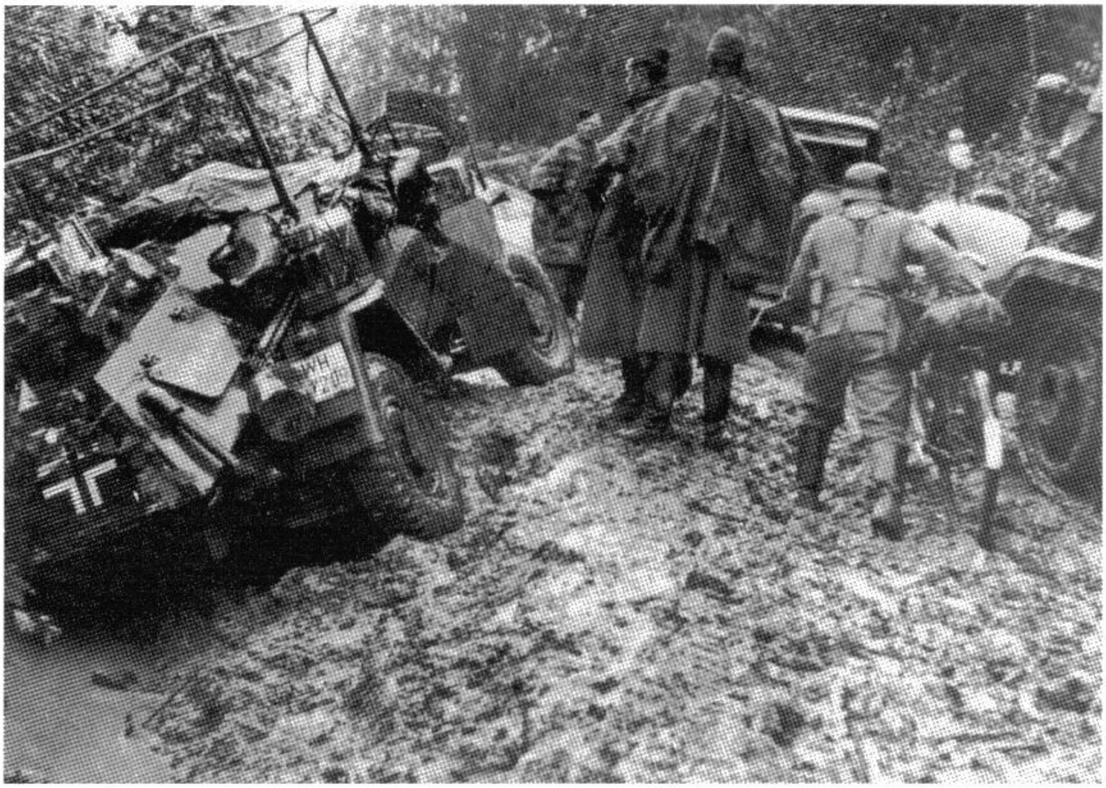
An Sd.Kfz.10/4 half-track armed with a 2cm FlaK30/38 anti-aircraft gun guards a village in Russia at the end of October, 1941. The divisional emblem of 11.Panzer-Division, the famous 'Ghost Division', is painted in white on the back of the vehicle. Also visible is the white letter 'K' painted on the ammunition trailer, the sign of Panzer-Gruppe von Kleist. The soldier seated on the trailer is handling a captured Soviet Tokarev STV-40 automatic rifle with a bayonet attached.

A mud spattered 3.7cm PaK35/36 anti-tank gun blocks a road in the Crimean Peninsula in November, 1941. This gun was often used in an infantry support role as it was incapable of dealing with the heavier tanks of the Red Army now being encountered in greater numbers.

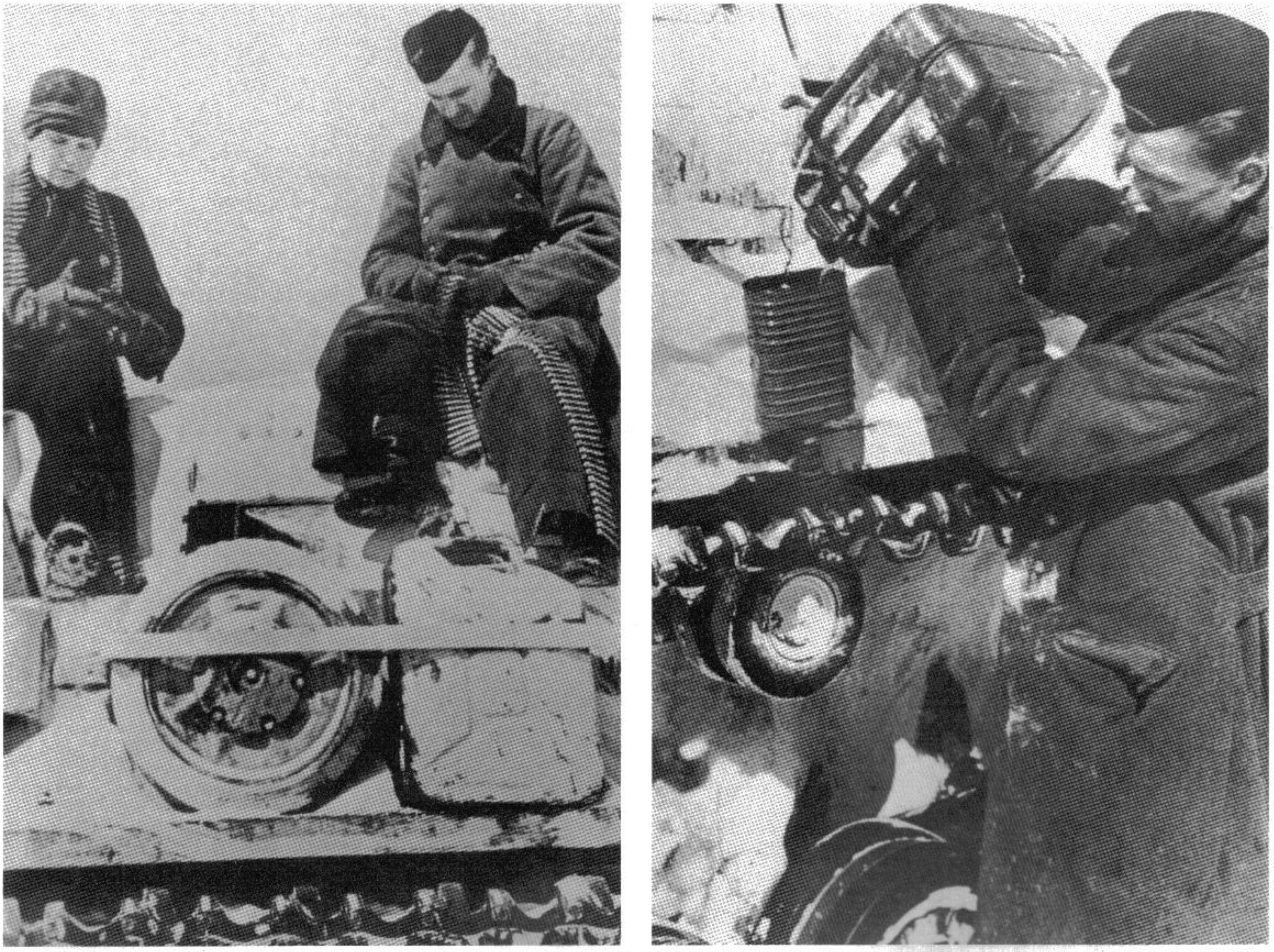
Two Pz.Kpfw.II Ausf.A-C, a Pz.Kpfw.38(t) Ausf.G and a Pz.Bef.Wg.38(t) Ausf.G on a dist road. After Operation 'Typhoon', the failed assault on Moscow, the Panzerwaffe reported the complete loss of 86% of the Pz.Kpfw.35(t) and 38(t) and 40% of the Pz.Kpfw.II it had started the campaign with in June.



A group of Pz.Kpfw.38(t) Ausf.Ds of 7.Panzer-Division stopped along the road to Moscow in November, 1941. The white outline tactical numbers indicate that vehicles from 1.,2. and 3.Kompanie are present here. Note the two different styles which the number '5' is painted on the side and rear of '535'.

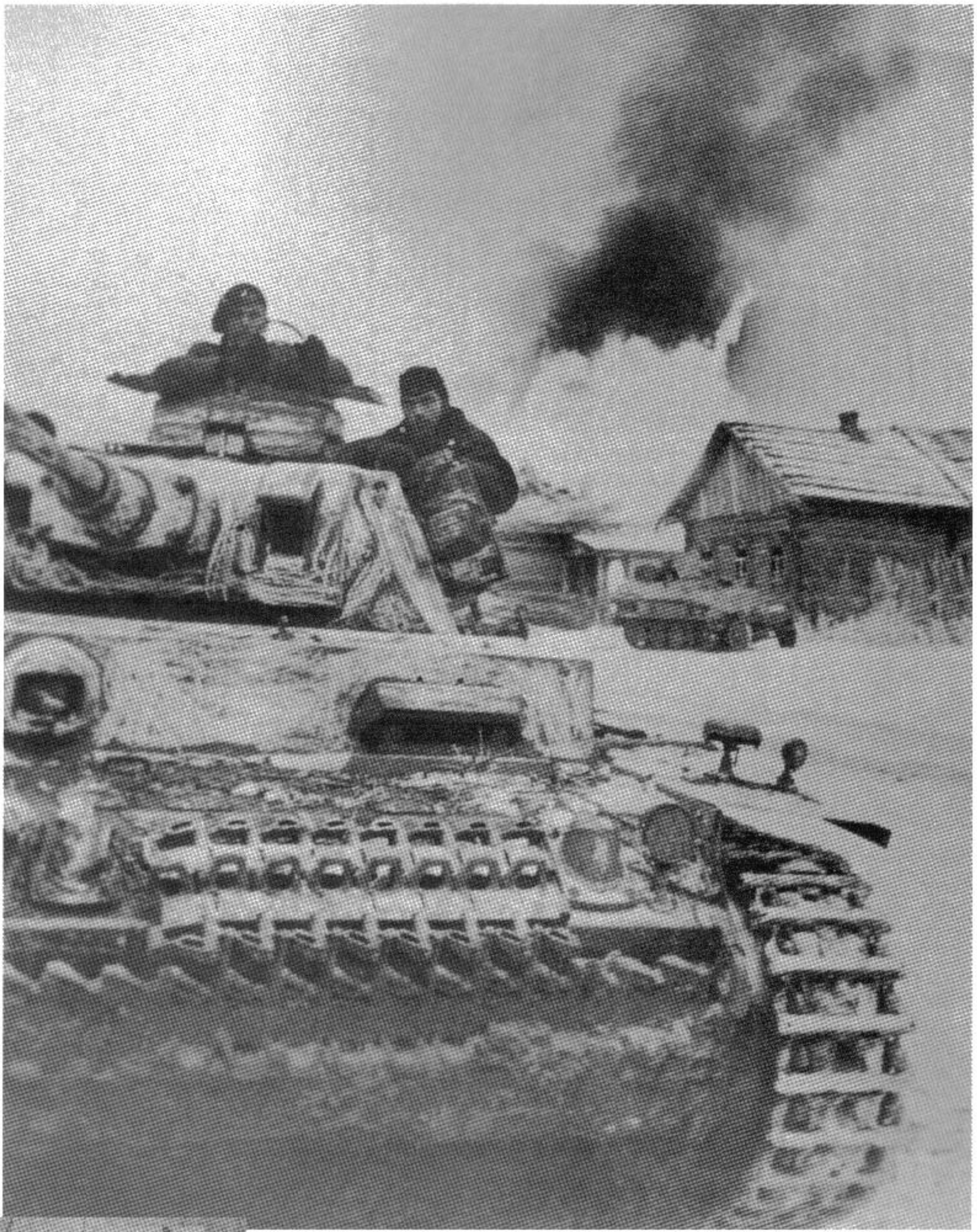


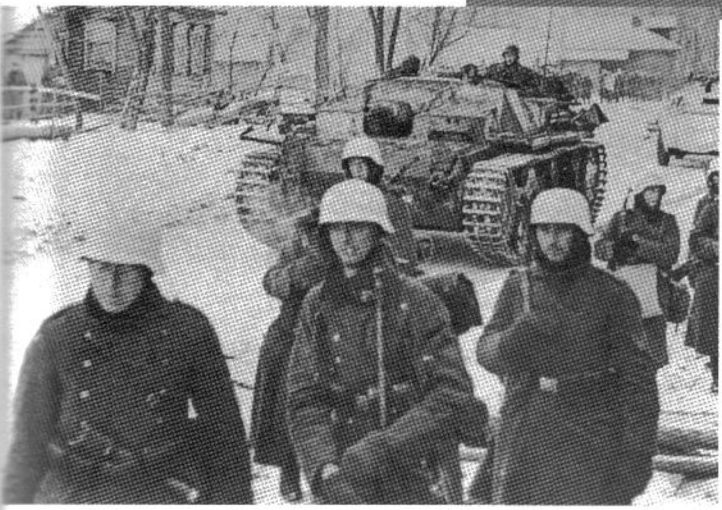
Prolonged poor weather conditions in November 1941 created impassable roads for most wheeled as well as tracked vehicle traffic in the Soviet Union. This leichte Panzerspähwagen (Fu) (Sd.Kfz.223) or kleine Panzerfunkwagen (Sd.Kfz.261) has slid into a ditch and awaits help from the Sd.Kfz.6 half-track prime mover coming along beside it. The name 'Weissenburg' is painted in white script on the engine access hatch.



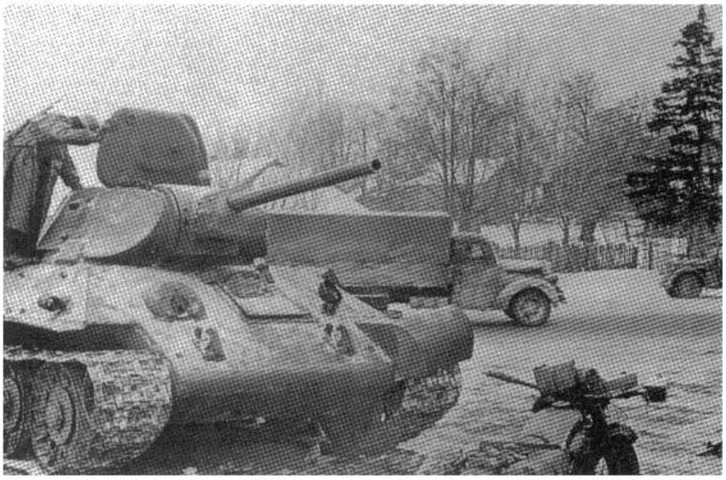
Two photos of a winter whitewashed Pz.Kpfw.IV Ausf.F1 being refueled and having its MG ammunition replenished during the winter of 1941-42. This enterprising crewman is utilizing a captured Soviet gas mask filter canister and hose as funnel to assist in the refueling process.

An early Pz.Kpfw.III Ausf.J fitted with the short barrel 5cm KwK L/42 gun passing through a burning Soviet village in the winter of 1941-42. The crew has hastily scribbled chalk all over their vehicle to provide a measure of camouflage against the white winter landscape. The German Army was totally unprepared for the winter conditions encountered in Russia and did not have enough supplies of washable winter camouflage paint to distribute to all the units needing it and so crews were forced to improvise. In the background, an Sd.Kfz.251/10 Ausf.B platoon leader's half-track can be seen.

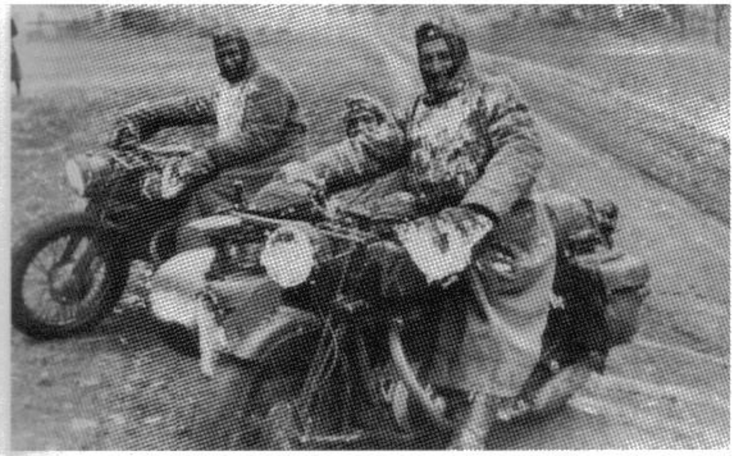




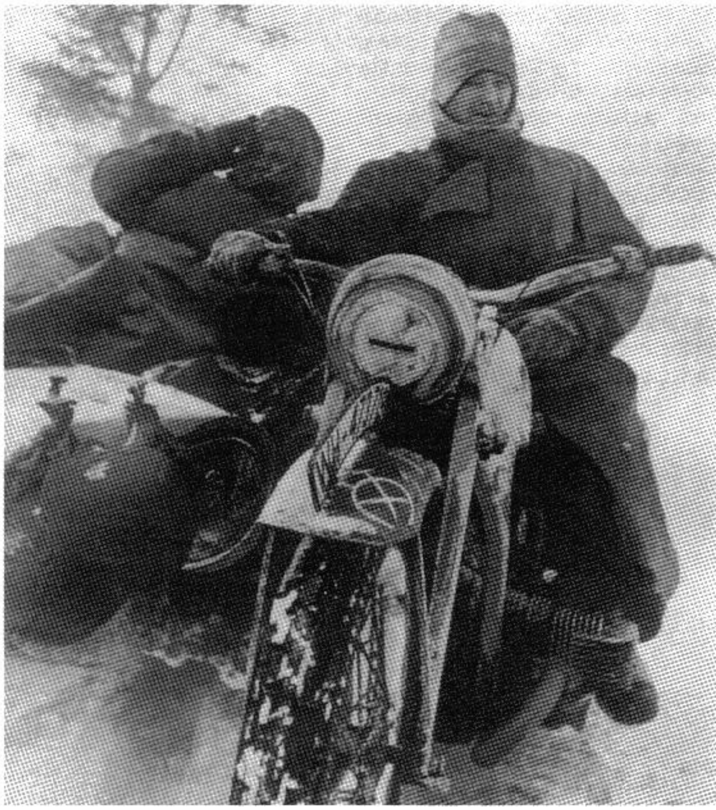
A StuG.III Ausf.C/D, which has a light covering of snow on it, heads a column of winter camouflaged armored cars through a Russian village in the winter of 1941-42. The armored car behind it is a leichte Panzerspähwagen (Sd.Kfz.222) which has had a white sheet draped over the front to improve the camouflage effect. The severe weather reduced the capabilities of the troops as well as put a strain on the vehicles themselves. The attack on Moscow would be the first major defeat for the German Army during which they lost large numbers of men and heavy equipment.



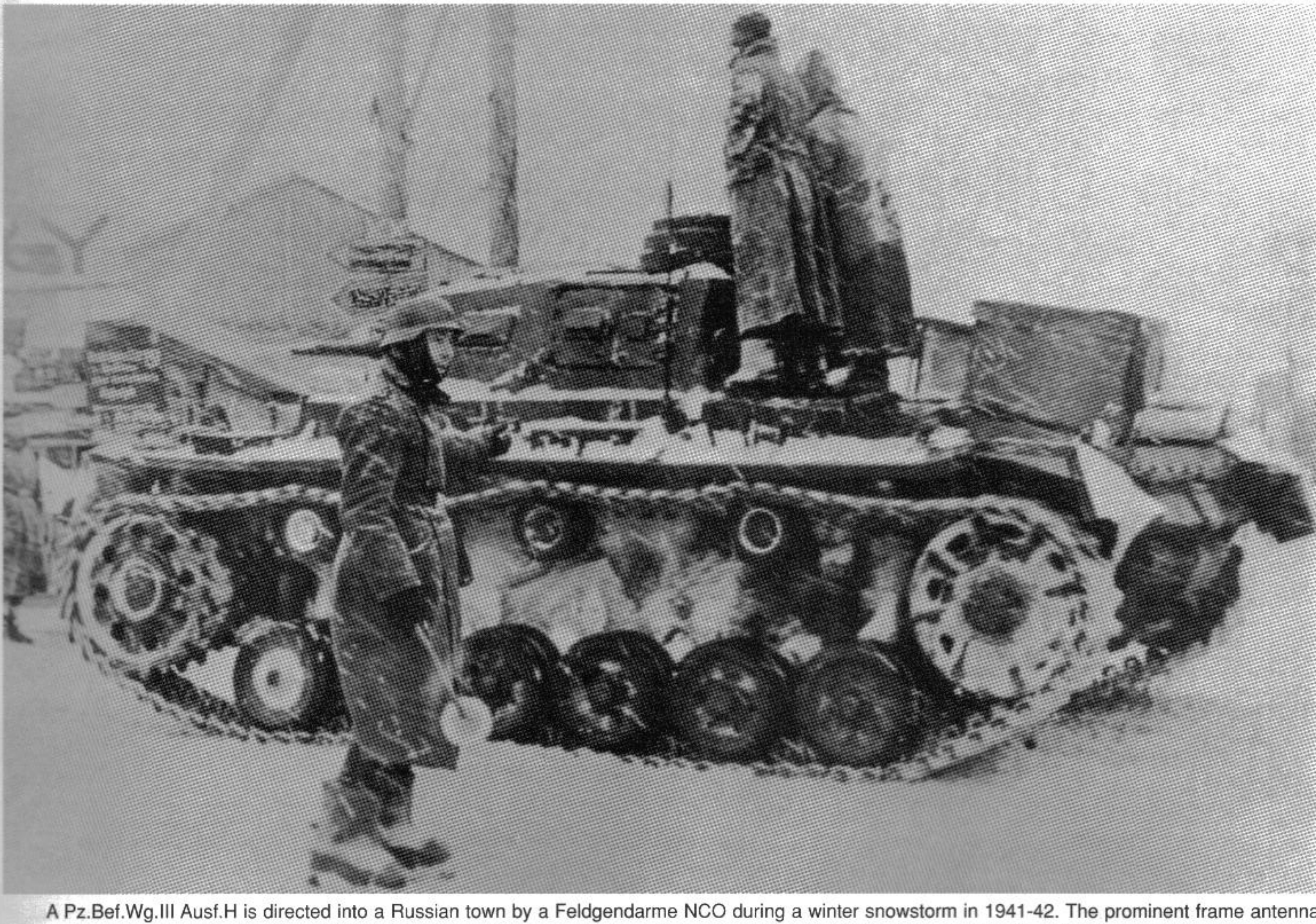
A German motorcyclist inspects the interior of a T-34/76 Model 1941, fitted with the later waffle pattern tracks and steel wheels, abandoned near Moscow in December 1941. Note the unusual marking on the mudguard of the motorcycle - a white outline square with the number '7' inside. It has a standard number plate also attached to the front mudguard with the number 'WH-210502'. The lorry and Horch car in the background have both received a thin coat of white camouflage paint.



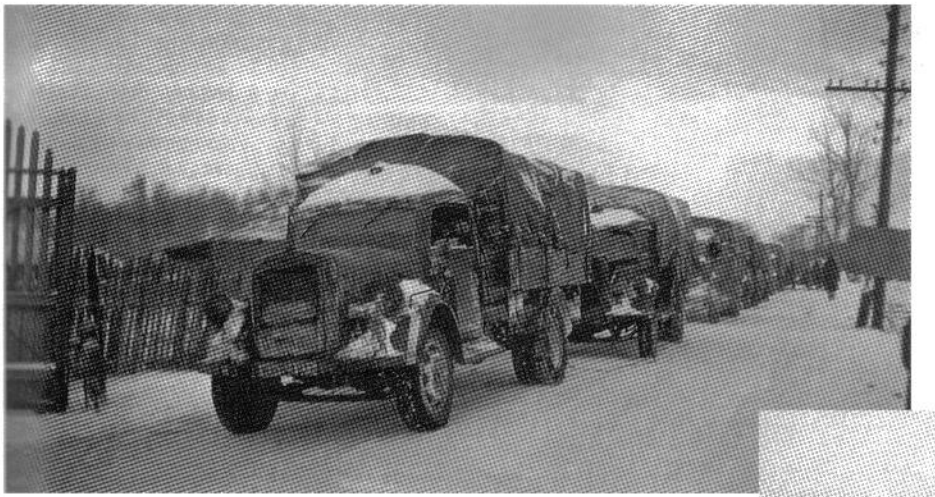
A pair reconnaissance motorcyclists enjoying a ride in the frigid weather near Rostov-on-Don during late November, 1941. Both machines are DKW 601 OSL motorcycles. Note the red or yellow 'K' for Panzer-Gruppe von Kleist painted on the side of the fuel tank on the combination in front while the one behind has a similar marking painted in white and is also missing its front mudguard. As well, a Notek blackout light has been mounted beside the headlight or on the sidecar of the combination.



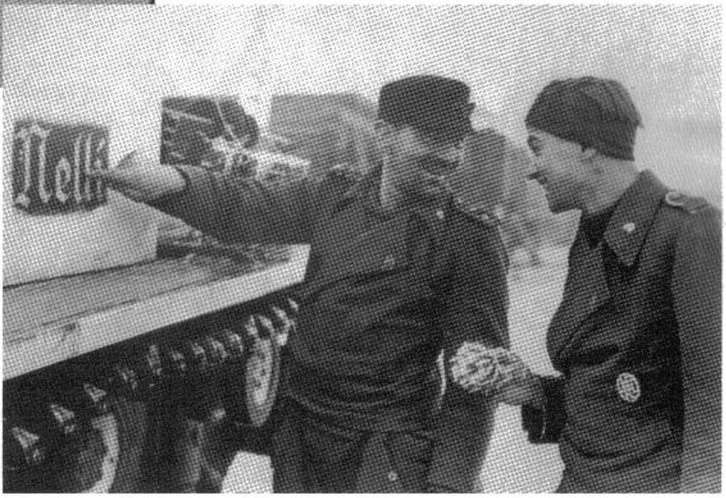
It is difficult to imagine the brutal conditions that the men on both sides endured in the winter of 1941-42, as can be seen in this photograph taken near Kalinin during December. The tactical marking on the mudguard indicates they are from the first company of a motorcycle reconnaissance battalion. The machine is a Zündapp KS600 with the license number 'WH-473719'.



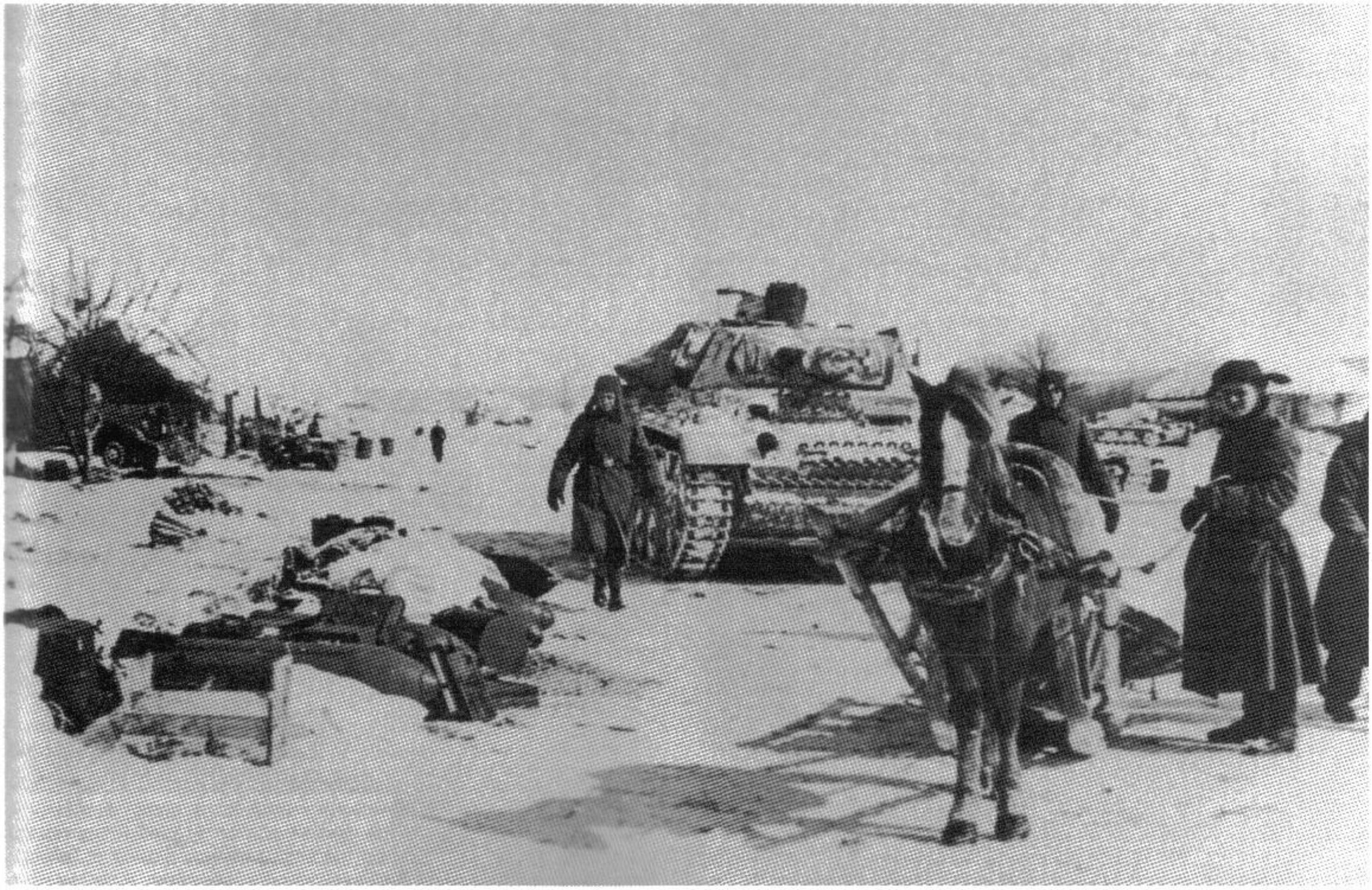
A Pz.Bef.Wg.III Ausf.H is directed into a Russian town by a Feldgendarme NCO during a winter snowstorm in 1941-42. The prominent frame antenna usually seen on the engine deck is missing but the rod antenna mounted on the left side is clearly visible and it is still fitted with the dummy 3.7cm gun. The men standing on the tank and the Feldgendarme are wearing the new wooden soled felt and leather winter overshoes worn over the marching boots, normally issued only to soldiers on watch duty. Among the numerous directional signs visible on the poles in the background are the 'Y' for 7.Panzer-Division and the 'XX' for 6.Panzer-Division.



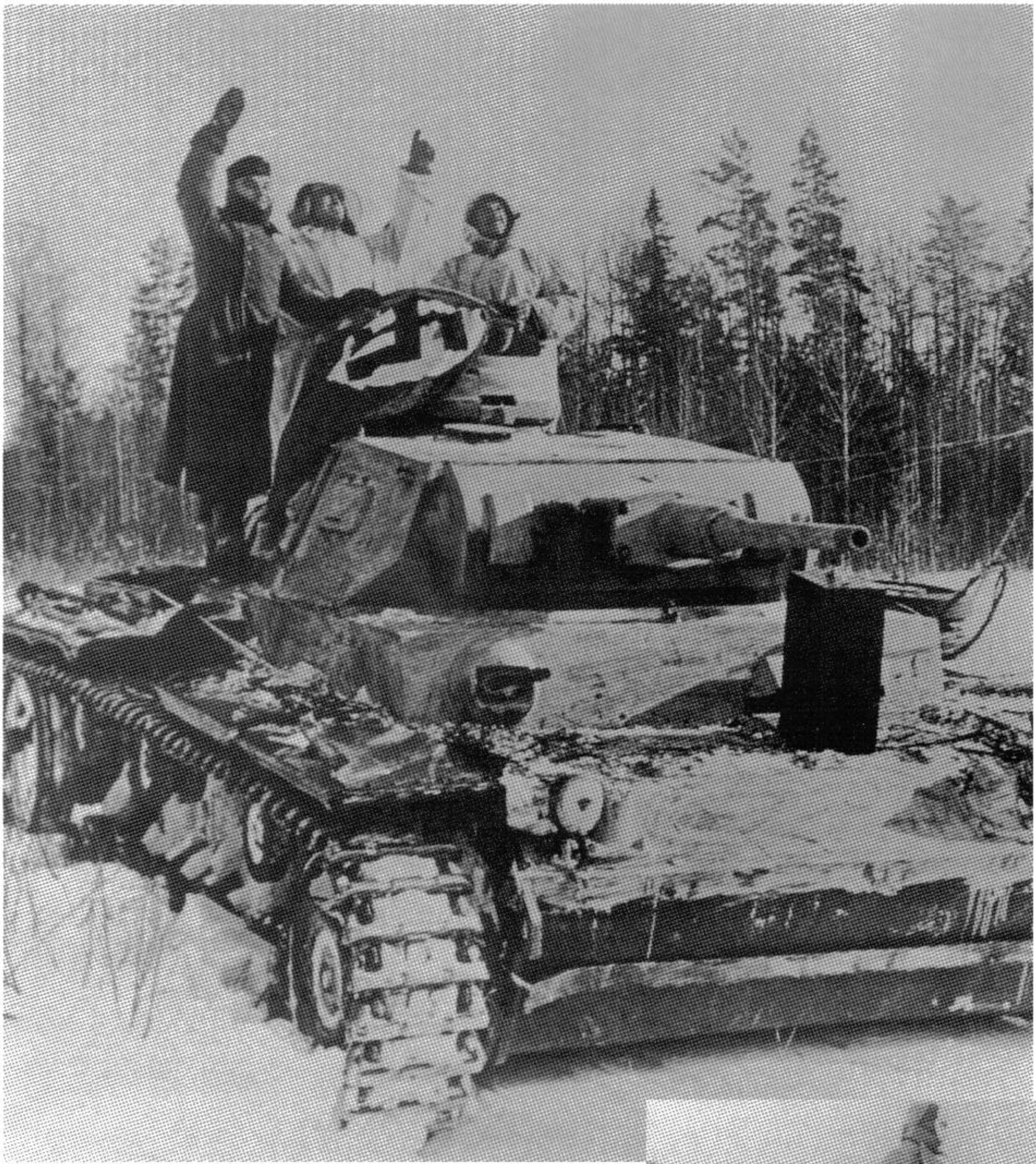
A snow covered German supply column halted on a road through a Russian village in the winter of 1941-42. The vehicles are equipped with chains on the rear wheels to improve traction on the frozen ground. Part of a tactical sign can be made out under the snow on the right mudguard of the nearest truck along with white width markings and the standard Wehrmacht number plate 'WH-629 977' on the front bumper.



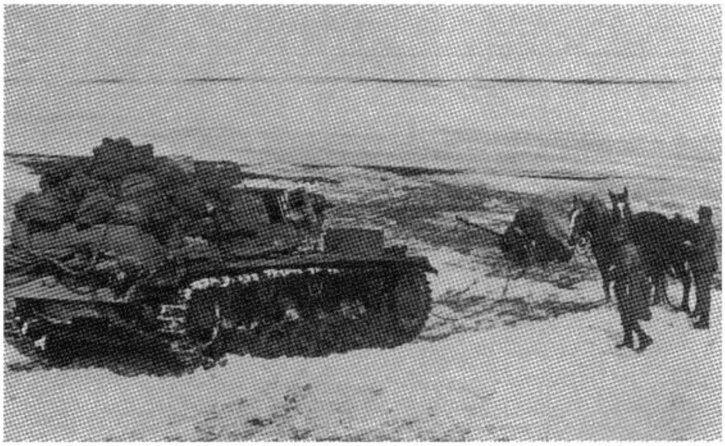
The experienced Hauptfeldwebel on the left seems to be instructing the young Unteroffizier to paint out the personal name on the side of their StuG.III assault gun as he applies the winter whitewash in January, 1942. He is wearing the ribbon of the Iron Cross Second Class in his jacket lapel. The Unteroffizier has been awarded the General Assault Badge and is wearing the slip-on shoulder strap titles that would probably have the number of his assault gun battalion embroidered on it. Unusually, both men have the Totenkopf collar patches on their uniform jackets, a practice normally reserved for Panzer troops.



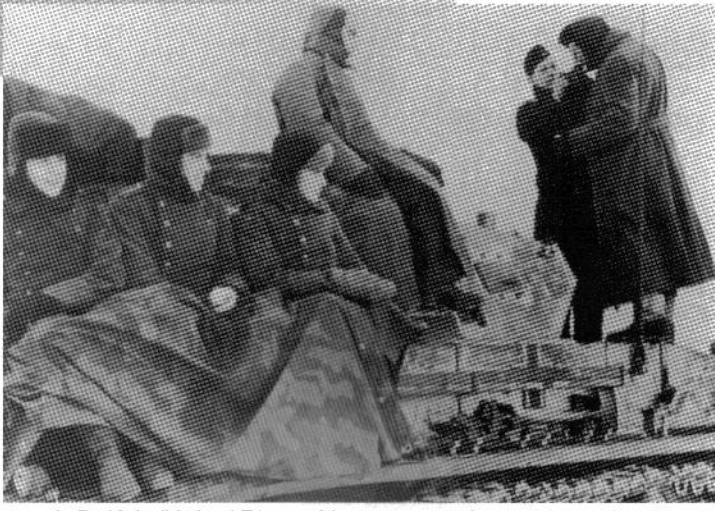
A winter camouflaged Pz.Kpfw.III Ausf.J in a Russian village in early 1942. It may belong to one of the divisions encircled by the Soviet counter-offensive from Moscow as there are many supply containers laying about that were parachuted into the surrounded units by the Luftwaffe. One of the largest pockets was in the Demjansk area, where the Luftwaffe sustained a force of 90,000 men but at the cost of 250 transports.



The crew of this Pz.Kpfw.III Ausf.J are waiting for another air supply drop in early 1942. The tank is completely covered with a thinly applied coat of whitewash painted on with a brush. Only the end of the gun barrel and front of the hull are left exposed because of the muzzle cover and spare track links normally carried in this position.

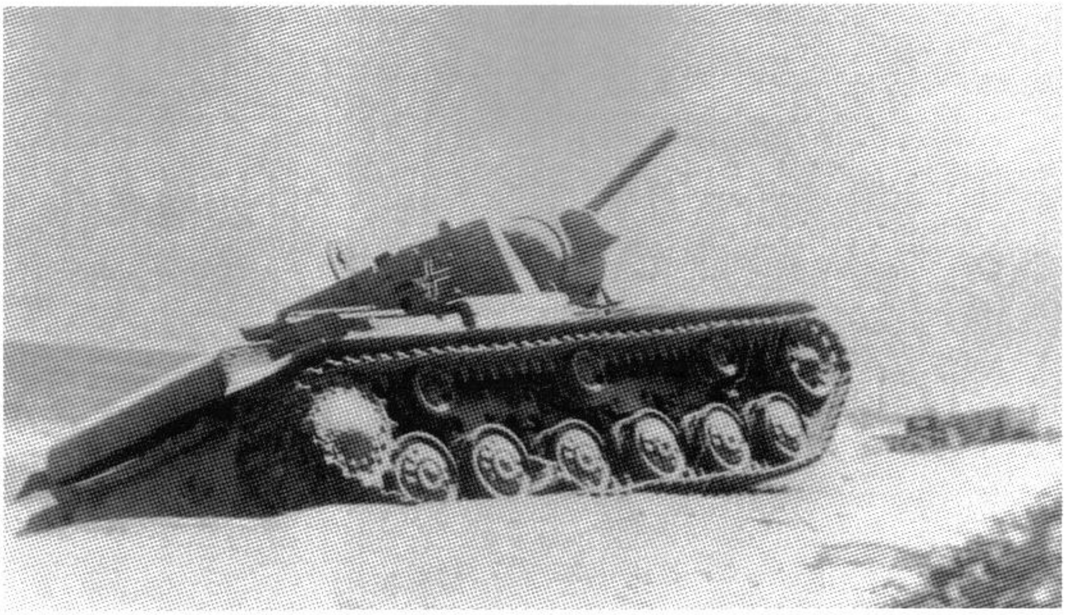


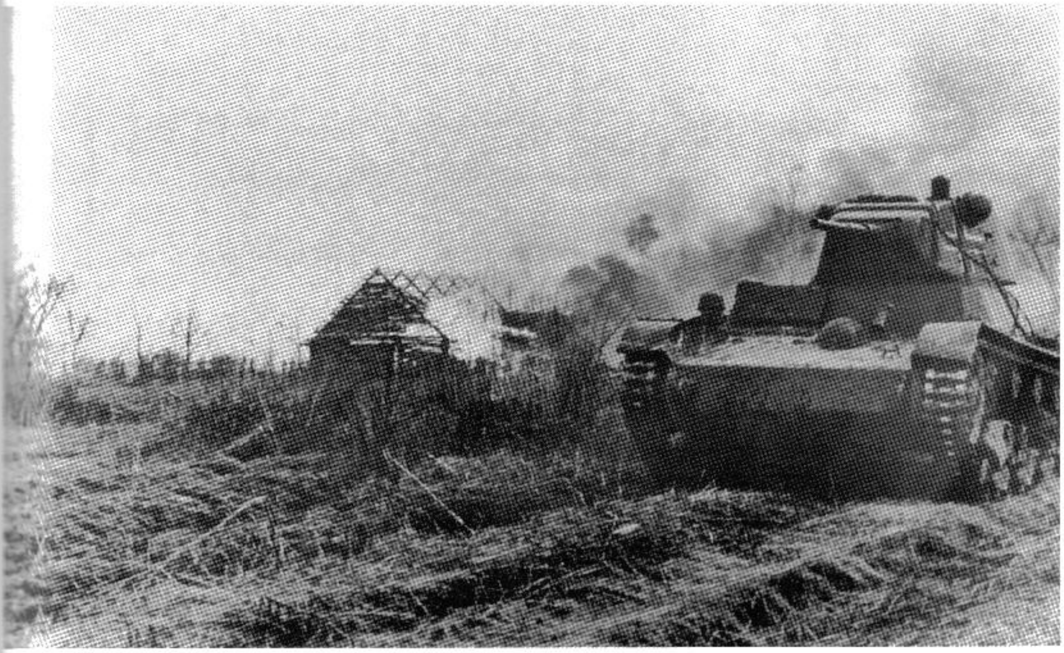
As losses of transport vehicles mounted, the German Army was often forced to rely on armored vehicles to move stores and equipment from place to place. Here, a heavily laden Pz.Kpfw.III Ausf.J helps retrieve a horse drawn supply cart that has broken through the ice of a small river in March, 1942.



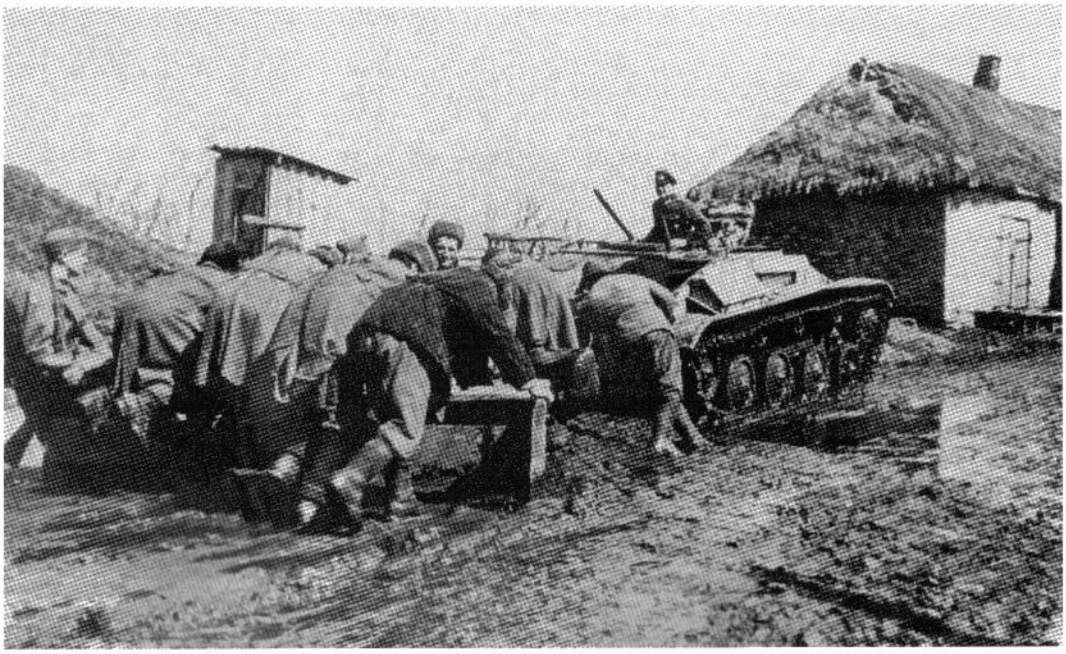
A Pz.Kpfw.IV Ausf.F1 provides transport for a group of men and equipment in February, 1942. The men are all warmly bundled against the cold and the three men sitting on the engine deck are using a Zeltbahn splinter pattern camouflage shelter quarter to cover their legs. Note the white outline national cross, part of which has been painted on the antenna trough. The winter camouflage paint has largely worn off most of the tank after prolonged exposure.

A captured KV1-E Model 1941 with applique armor installed on the turret and hull sides. In the first months of the war against the Soviet Union, many Russian tanks were captured intact and put into German service, usually in rear areas for guard and anti-partisan duties and as such, were not counted on the official strength reports. Many, like this one, were subsequently abandoned when they broke down for lack of spare parts.

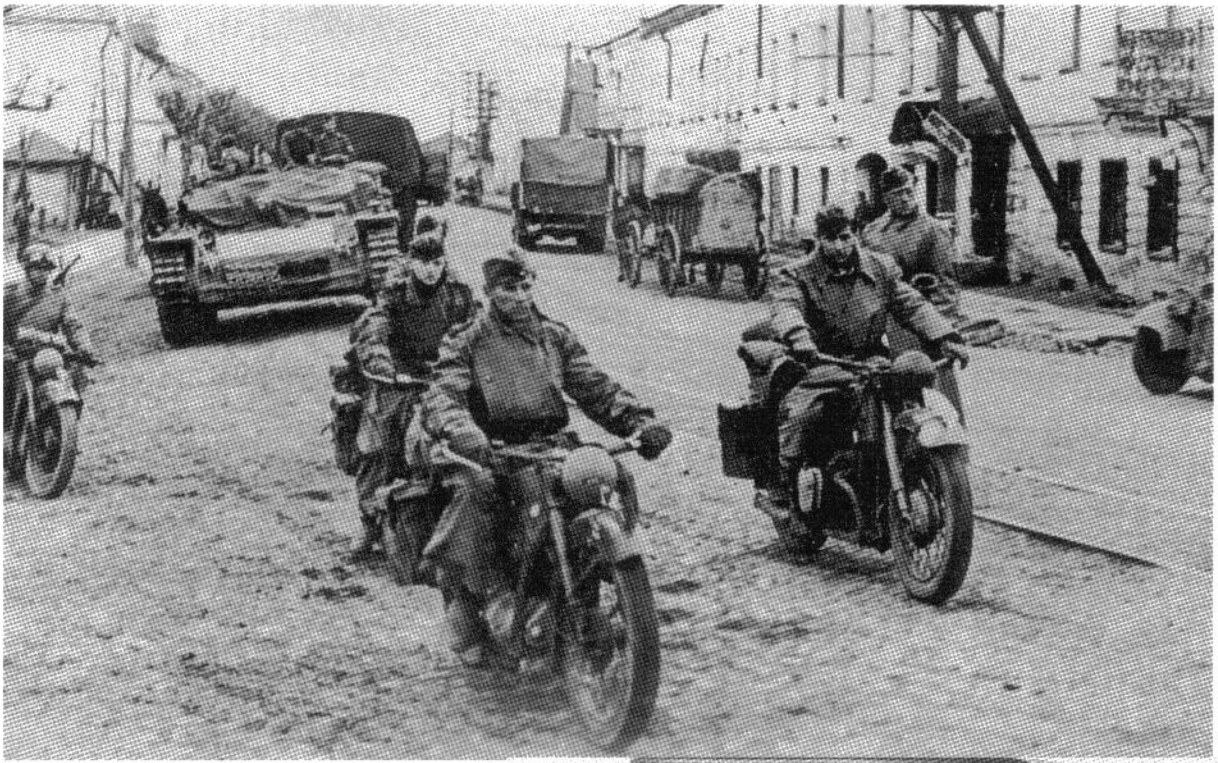




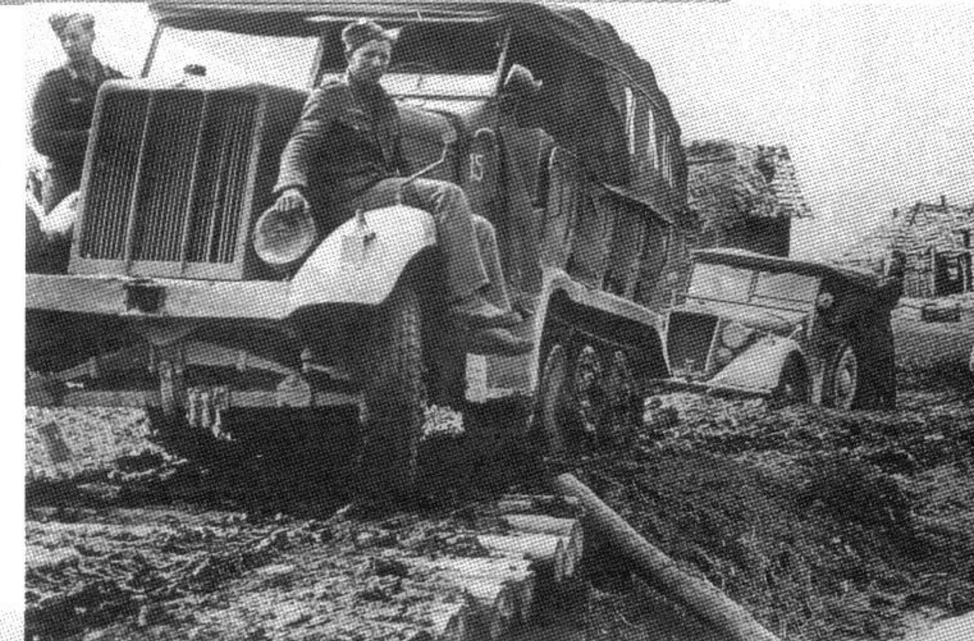
This captured Soviet T-26 is being used to support German troops in anti-partisan operations behind the front lines. It is possible that this tank has been repainted in the standard dark gray paint used by the Germans along with large white outlined black national crosses on the turret sides and rear. A small yellow number '7' has been painted on the side of the mantlet as well.



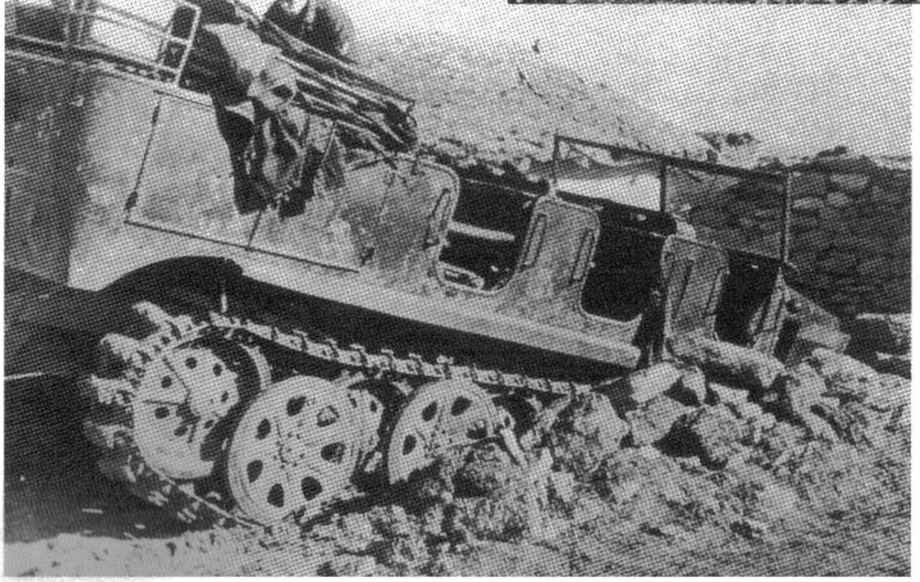
A turretless T-70 being used to tow a makeshift grader clearing a muddy street in the Ukraine in May, 1942, assisted by several Soviet POWs with a German guard. Often, these light tanks were recovered and repaired for use as ammunition carriers and light artillery tractors.



A BMW R35 and
BMW R12 motorcyc
lead the way through
Russian city in ear
1942. Behind them is
StuG.III Ausf.E with
large canvas tarp ov
the front of the fightir
compartment.
Camouflage white pai
covers the vehicle ar
some of the spare trac
links carried on th
front of the hull.
section of new trac
links has been adde
beside them that hav
not been camouflage

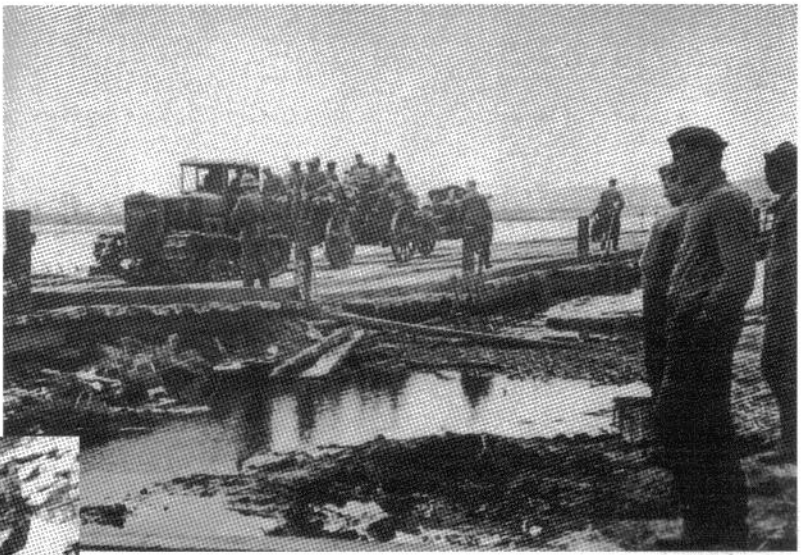


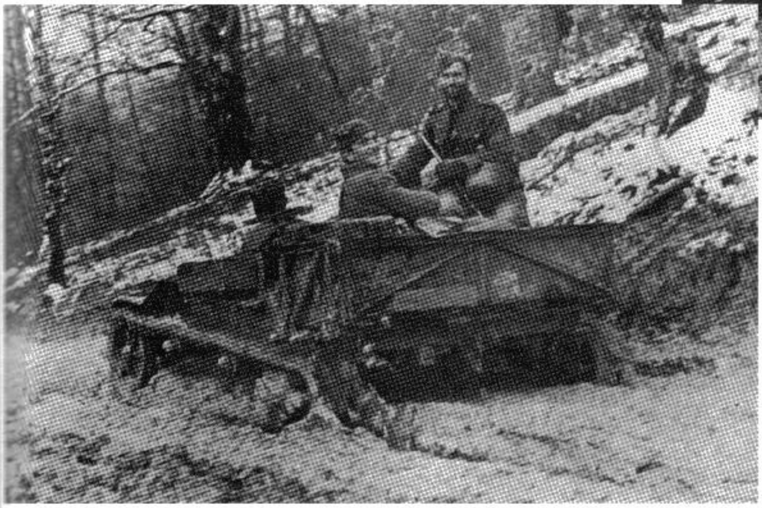
An early Luftwaffe Sd.Kfz.6 half-track prime mover tows two Horch Kfz.15 heavy cross country cars through a muddy village street in early 1942. About 3,000 of this type of vehicle were built for the Wehrmacht by Büssing-NAG beginning in 1935 and, later in 1938, by Daimler-Benz. The familiar three pointed star emblem on top of the radiator grille indicates this one was manufactured by Daimler-Benz. A white road width marking is barely visible on the left mudguard of the half-track and a white number '15' has been painted on the side of the cab. These usually denoted the vehicle number in the unit.



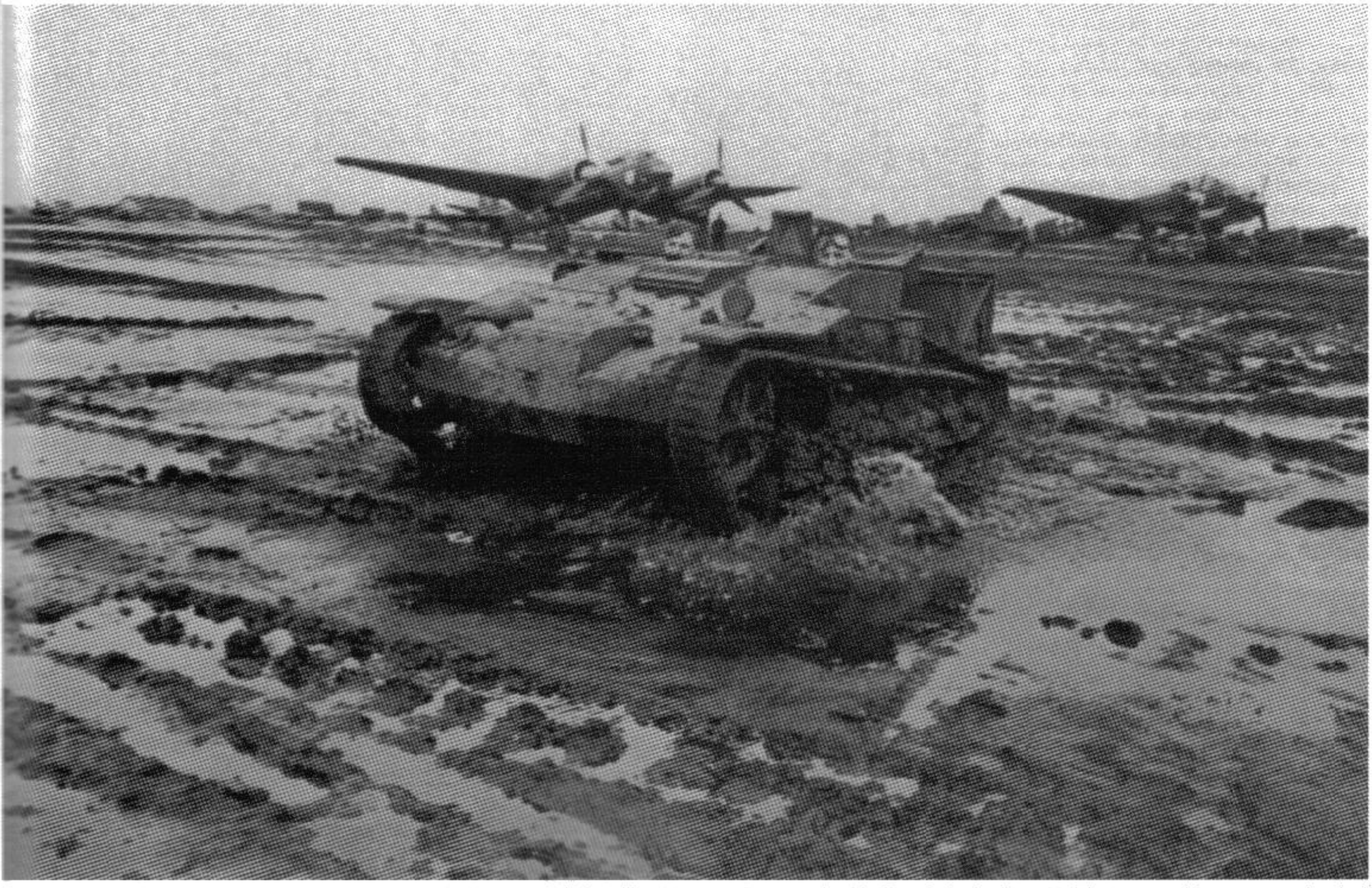
This Luftwaffe Sd.Kfz.7 half-track prime mover ha
been driven partly into the dugout entrance of a
underground bunker to help conceal its enormous bu
from enemy artillery spotters in early 1942. The vehic
is finished in overall dark gray which has been tone
down by the gradual build-up of dirt and mu
accumulated over months of service.

Throughout the campaign in Russia, the German Army made extensive use of captured enemy vehicles and equipment. Here, a captured Soviet artillery tractor is being used to tow a 10.5cm leFH18 howitzer along with two ammunition limbers in the Kharkov area in April-May 1942. Thanks to this practice, many horse drawn units were able to convert to wheeled or tracked vehicles.

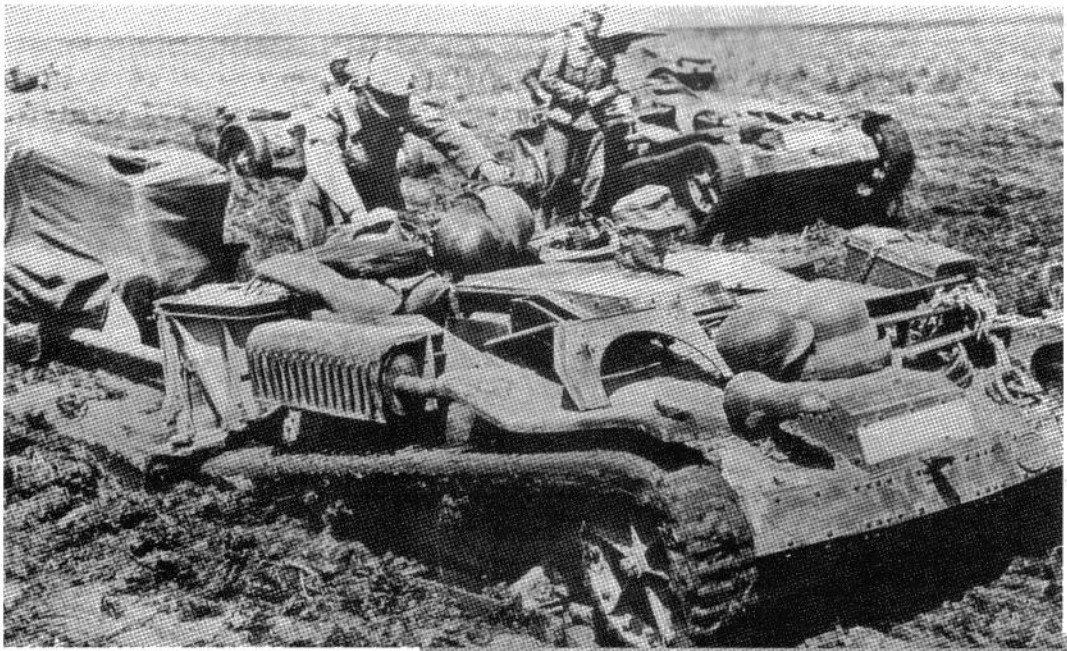




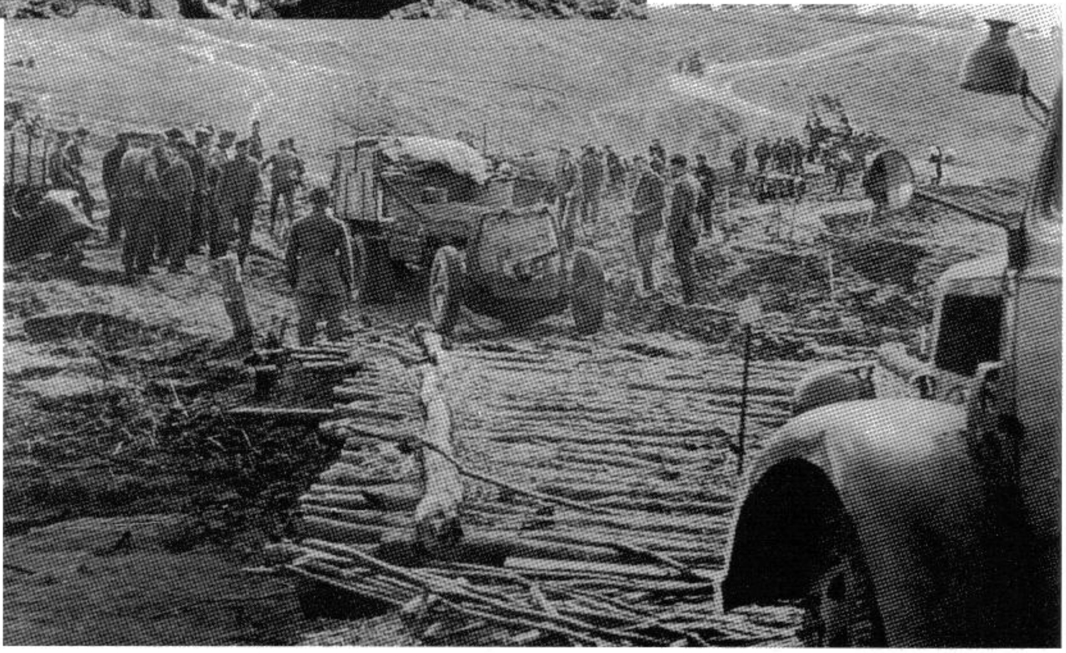
The German Army captured hundreds of Renault/AMX UE fully tracked tractors during the battle for France in 1940. They were designated UE 630(f) by their new owners and widely utilized in the Soviet Union for a variety of purposes. They had excellent cross-country capabilities and here one is seen making its way through a sea of mud, typical of the Russian road system during this season.



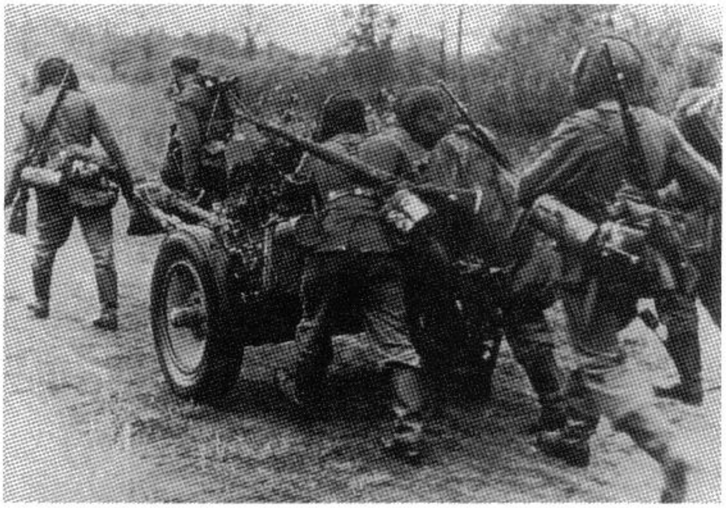
Many were used by the Luftwaffe for security and general duties, like this one photographed in Russia in April, 1942. They were able to carry a load of up to 500kg in the rear cargo compartment. In the background are two Junkers Ju88 bombers and a Ju52 transport.



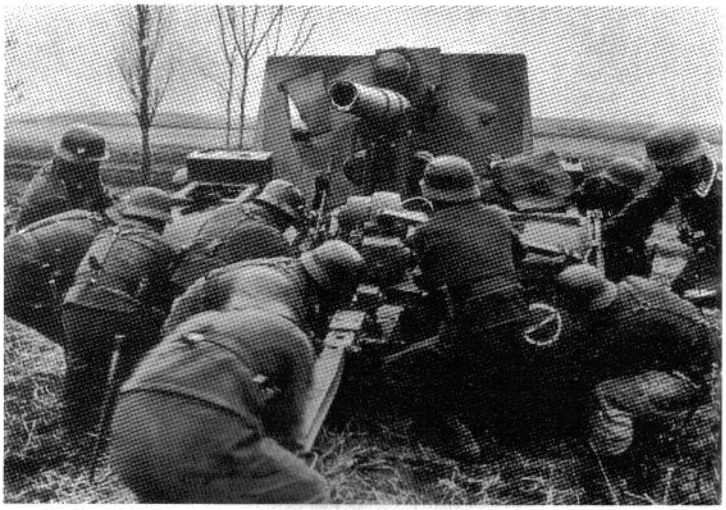
A pair of Renault UE tractors plow their way across the muddy Russian steppe after a rain storm in the spring of 1942. They normally had a crew of two men and had a large, open tray in the rear for carrying a load. Officially incorporated into the Wehrmacht, they were assigned a standard license number that would have been painted in the white rectangle on the front of the hull. It would appear that these two have not yet had their numbers assigned.



A transport truck is towing a 3.7cm PaK35/36 anti-tank gun across an improvised bridge over a small stream in the Kharkov area in May, 1942. In ordinary circumstances, a smaller vehicle would be used for this duty, but in the field the most practical expedient was often the best solution. In the foreground is one of the ubiquitous Opel Blitz 3-ton trucks waiting its turn to cross.

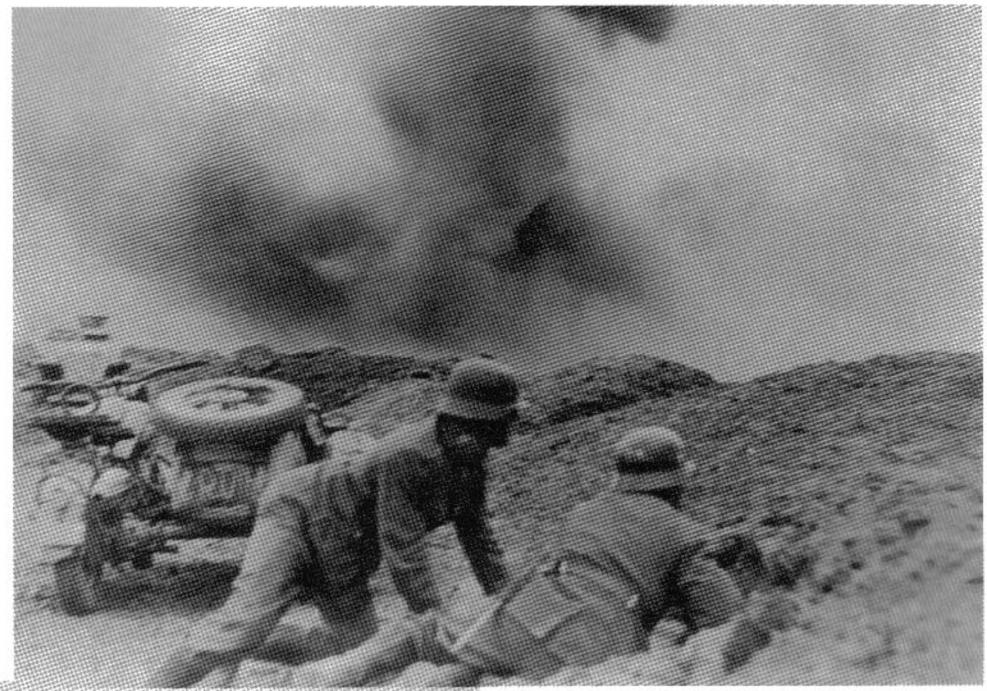


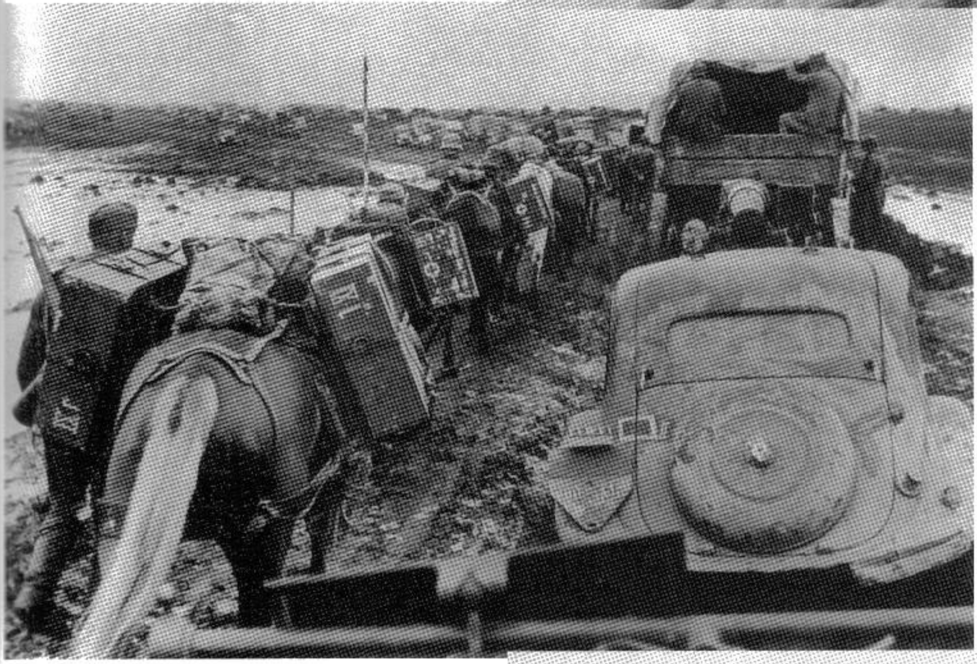
The arrival of spring brought another problem to plague the Wehrmacht in Russia - hordes of mosquitoes and flies. The crew of this 3.7cm PaK35/36 manhandle their gun along a road in the early summer of 1942, each man protected by a mosquito net over his head. By late 1941, this gun had been superseded by the 5cm PaK38 but it continued to serve in minor roles until the end of the war.



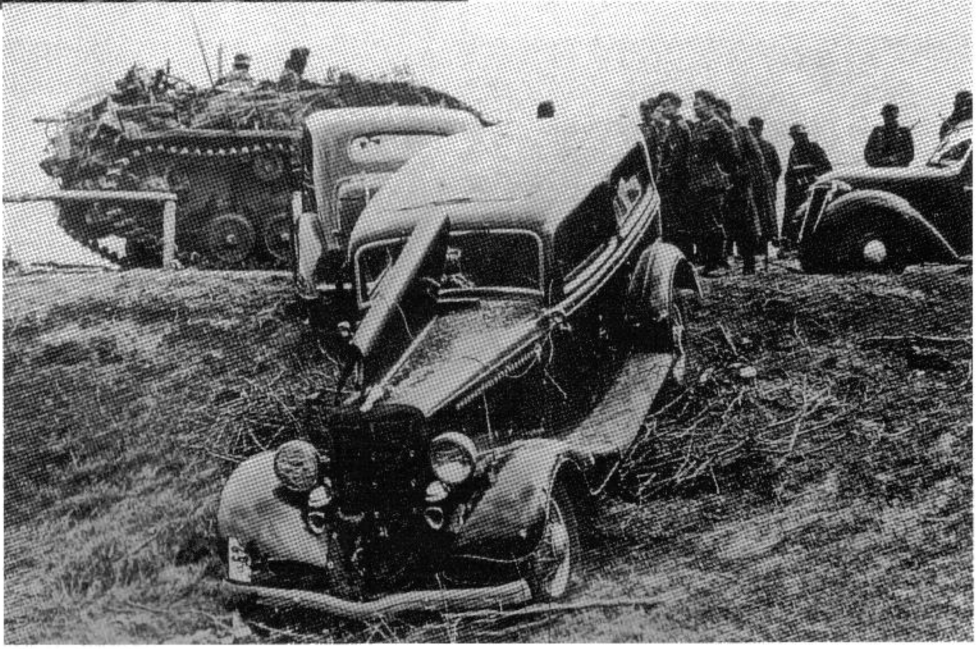
Luftwaffe troops struggle to remove the front carriage from their 8.8cm FlaK18 anti-aircraft gun in the Kharkov area in late May, 1942. The gun appears to have a two color camouflage scheme applied to the shield, the revival of a pre-war practice, and is likely green over the original dark gray base. The tactical marking on the mudguard frequently appears in photographs though the exact meaning is unclear.

Men from a motorcycle unit take cover from an artillery bombardment. The BMW R75 motorcycle combination has the name 'Ruth' painted in white on the rear of the sidecar. In the background can be seen an Sd.Kfz.253 leichte Gepanzerte Beobachtungswagen, which would indicate they may be attached to a Sturmgeschütz Abteilung or an armored artillery battalion. The half-track has a camouflage pattern of light, wavy lines applied over its dark gray base color. This photo was taken in May 1942.

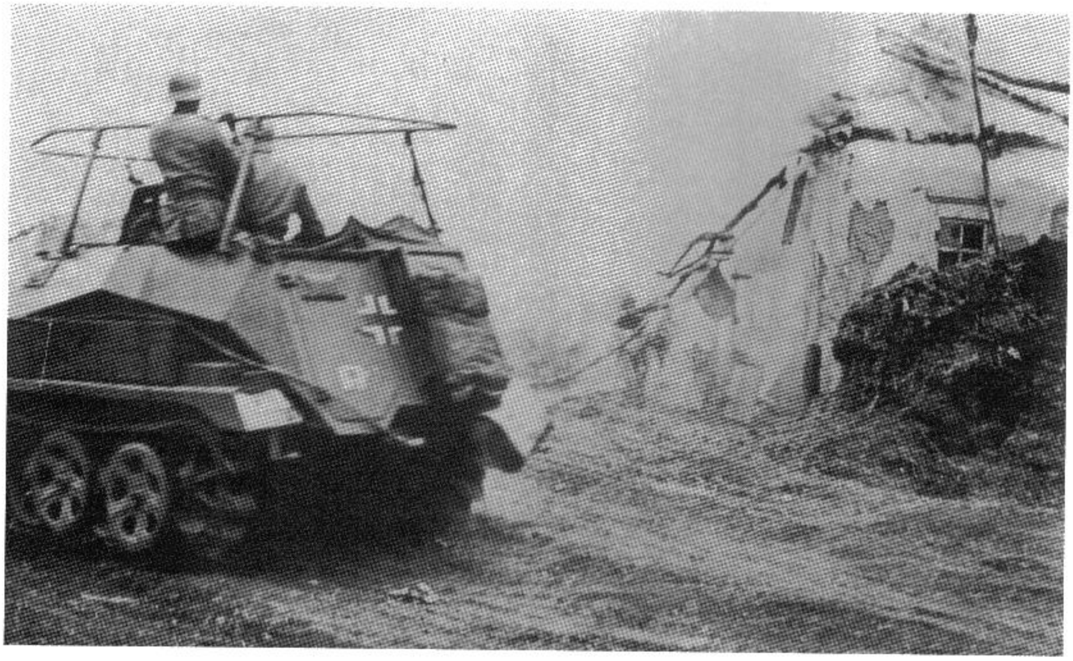




A long column of German motorized and horse transport march against the enemy in May 1942. This photo gives some insight to the problems experienced by the frontline troops in receiving adequate supplies from a transport system not designed to cope with the poor roads in the Soviet Union choked with thousands of vehicles and horses. The accumulated layer of mud has been rubbed off parts of the staff car revealing the emblem of 23.Panzer-Division, a yellow diagonal arrow with a stroke through the shaft, painted to the right of the spare tire bulge and the tactical sign of a II.Bataillon headquarters vehicle painted in white to the left. The markings on the containers being transported by horse on the left are 'IXr' and IXl' (ie. 9 right and 9 left). The other horses are carrying cases of medical supplies.

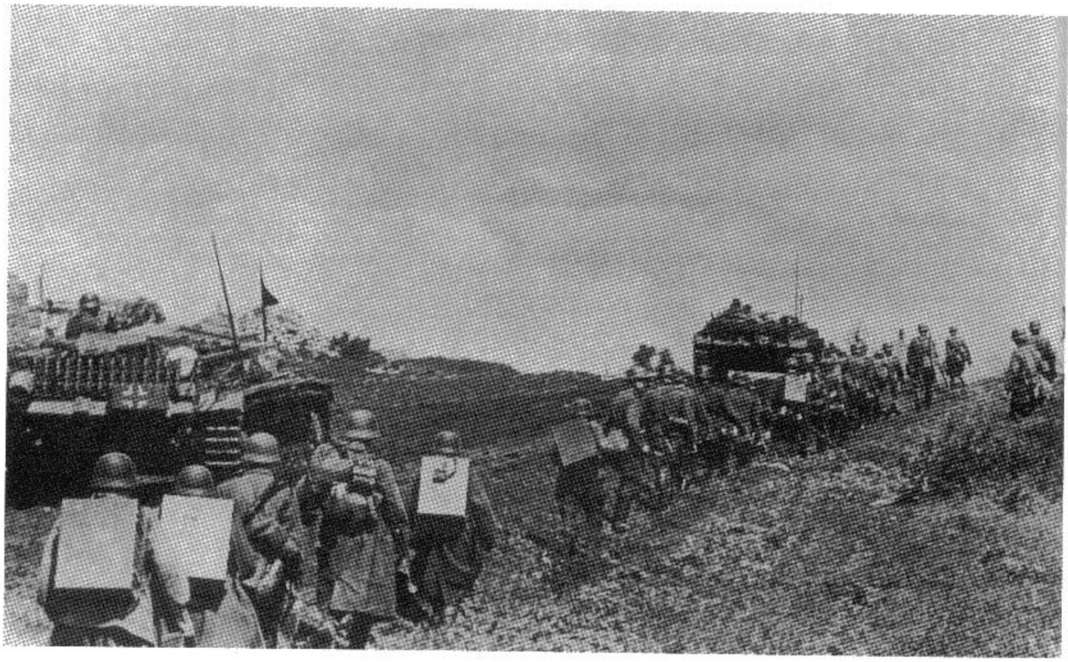


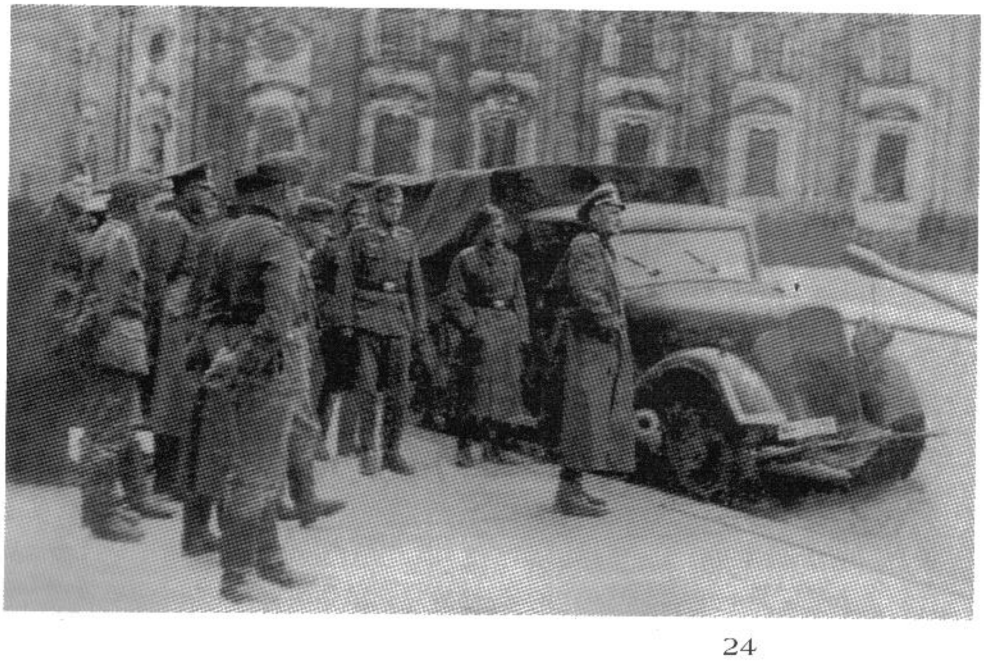
Three Soviet staff cars shot up and abandoned near Kharkov around the end of May 1942. In the background, a StuG.III Ausf.B can be seen heavily camouflaged with tree branches. After the collapse of the German Army against the Russian winter offensive, the successful battles around Kharkov proved that they were prepared for their renewed summer offensive, Operation 'Blue', the advance into the Caucasus.



An Sd.Kfz.250/3 leicht Funkpanzerwagen passing through th ruins of a village demolished during th fighting south of Kharkov in early Jun 1942. Just below the white outlin national cross, the tactical sign for th first company of a motorized infantr regiment can be seen painted on th bottom of the access door.

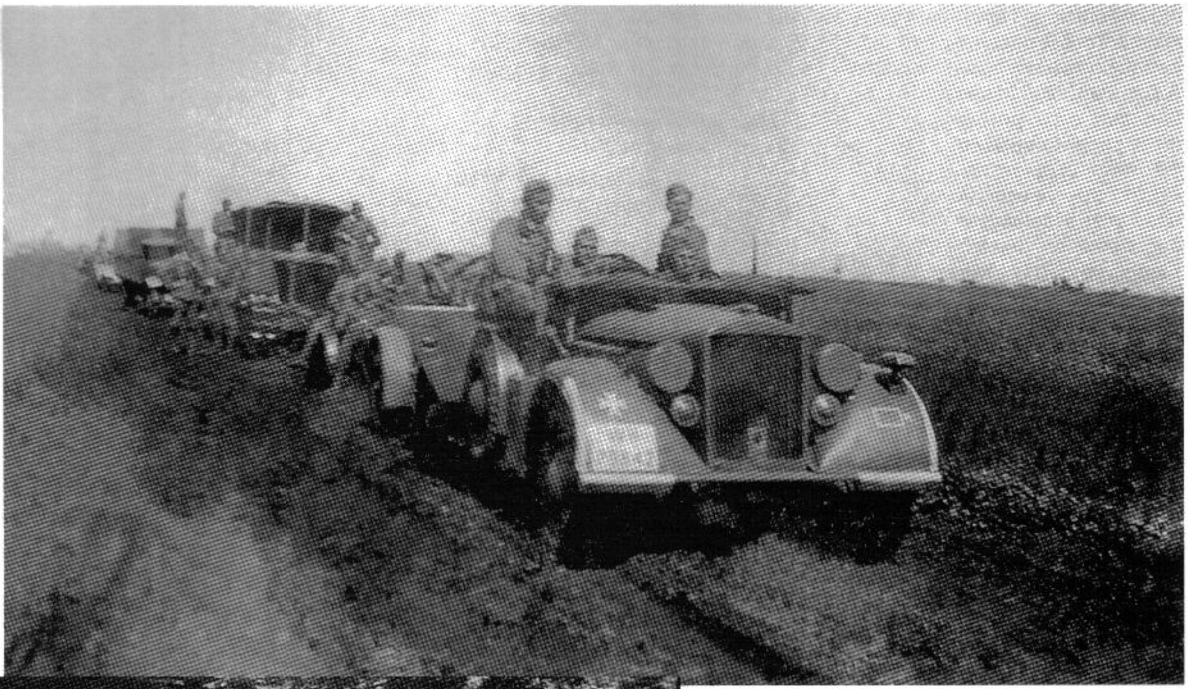
German infantry march east accompanied by two StuG.III Ausf.E in June 1942. Both vehicles appear to have had an additional antenna installed on the right side to which one of the crews has attached a pennant. Because there was no movable turret, the engine decks of these vehicles tended to be heavily stowed with the crew's gear, additional equipment and supplies. Three 2-man radio teams can be seen carrying their field radios and battery packs among the marching troops.

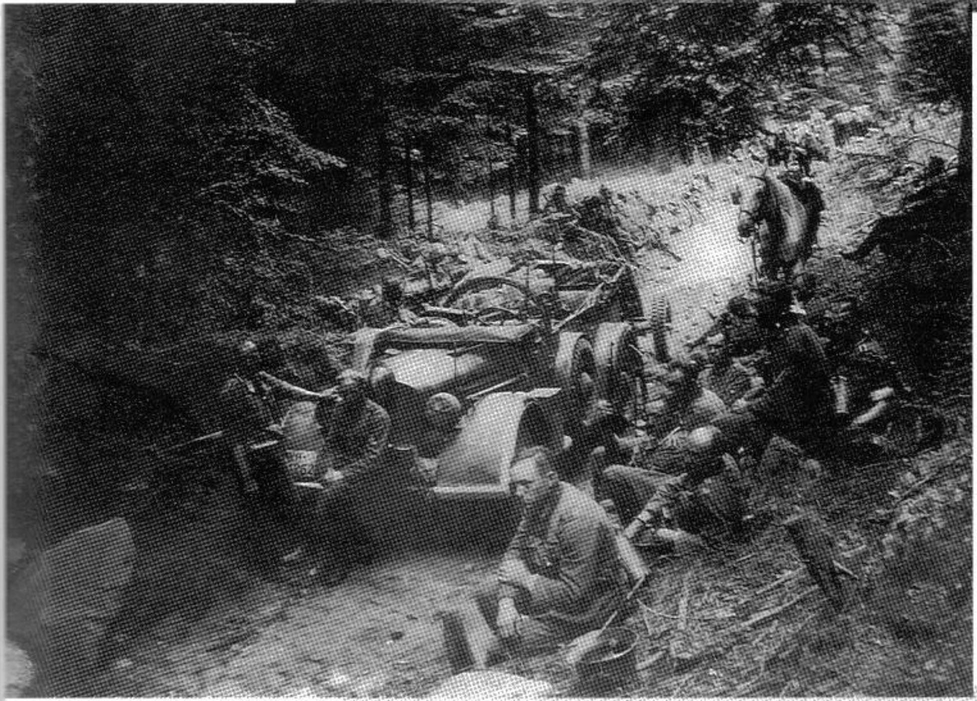




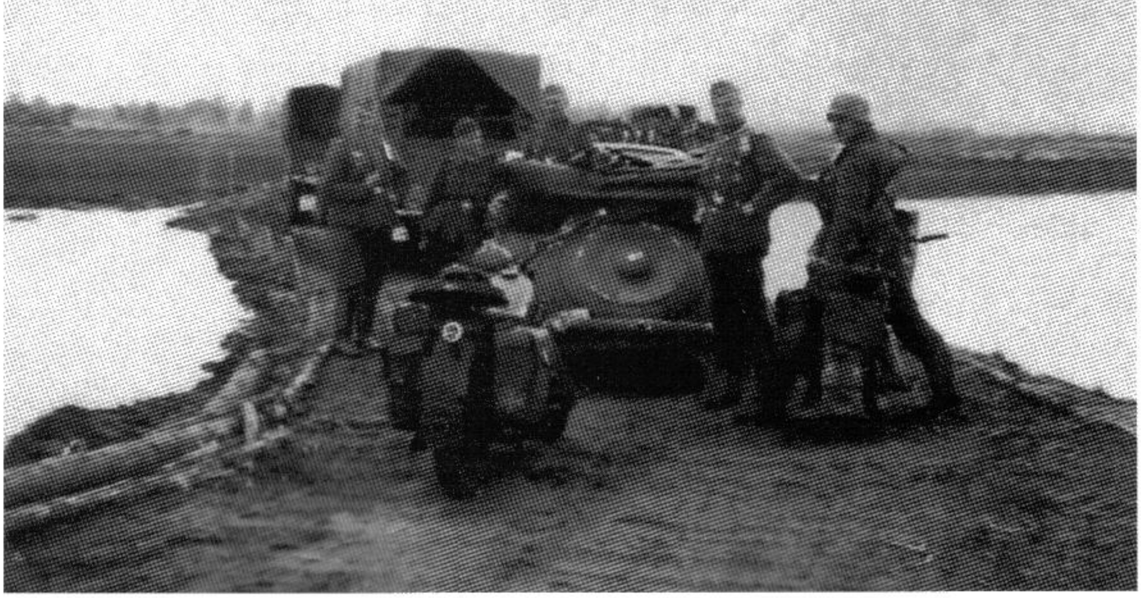
A 1.5-ton light truck from an anti-tank unit parked on the street in an old Russian city carries the emblem of 28.Jäger-Division, a white Maltese style cross, on its right mudguard along with white road width markings. Also visible is the Wehrmacht license number 'WH-51953' on a metal plate attached to the bumper. The barrel of a towed 5cm PaK38 anti-tank gun can be seen directly in front of the truck.

A column of vehicles from the 28.Jäger-Division photographed somewhere in Russia. The leading Horch Kfz.15 medium cross-country car displays the divisional emblem on its right mudguard as well as the tactical sign for the eleventh company of an infantry division on its left mudguard. White vehicle width markings are also painted on along with the standard license number 'WH-79842'. Just behind, a captured Soviet artillery tractor can be seen.



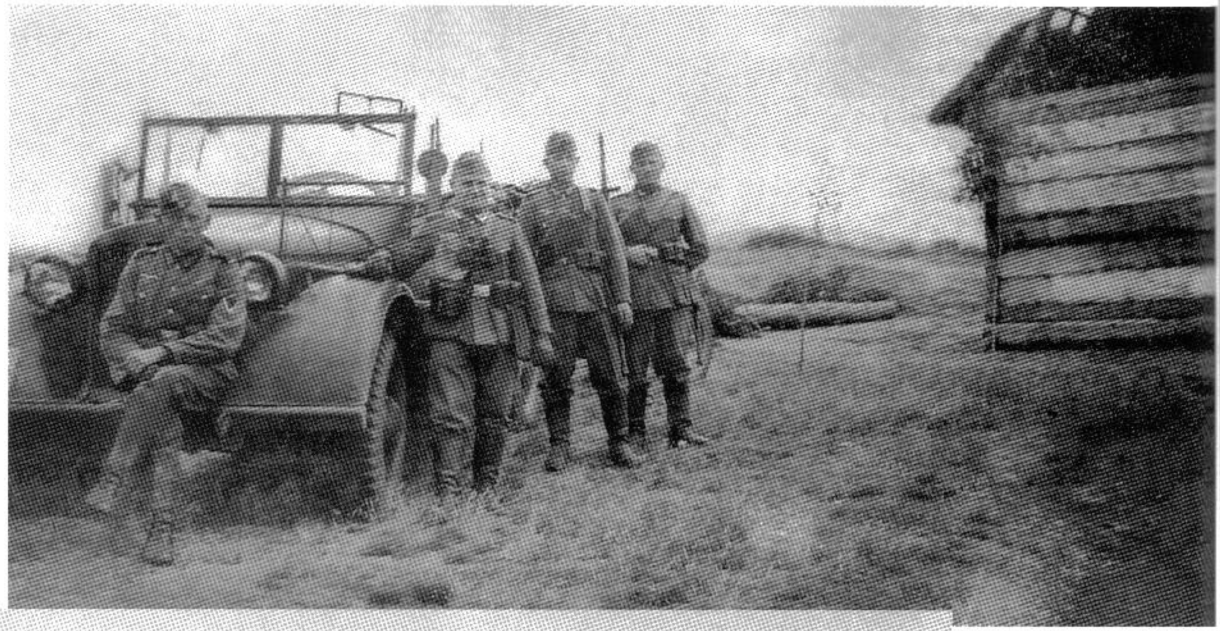


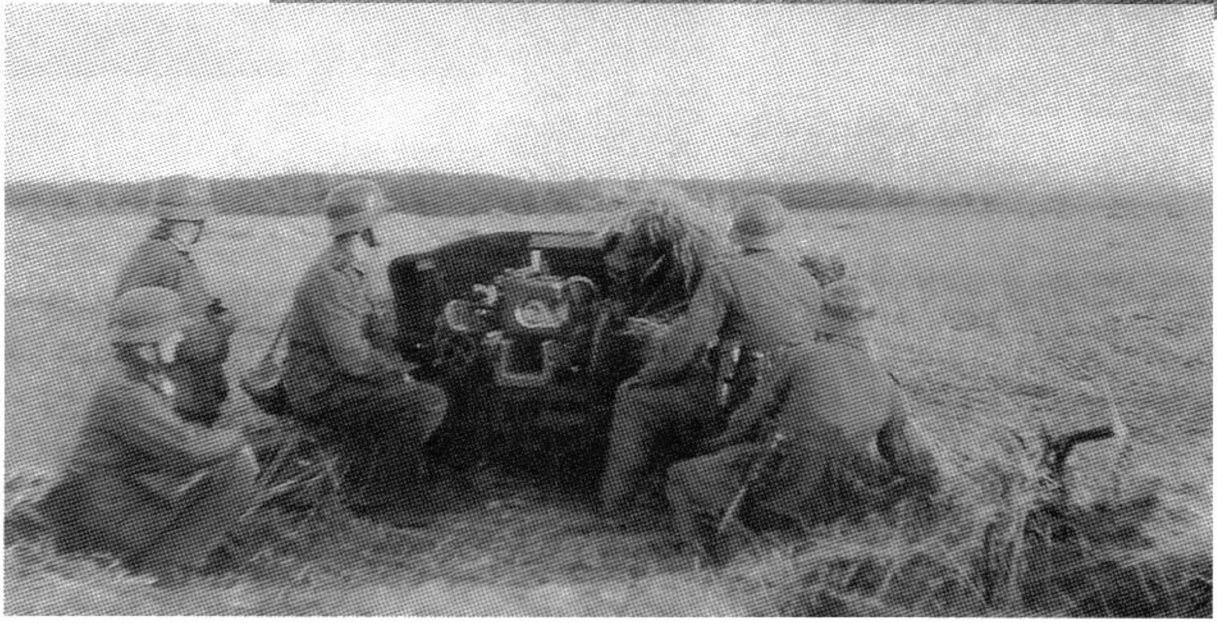
A Horch Kfz.12 medium cross-country car from the same unit, towing a 3.7cm PaK35/36 anti-tank gun, halted along a forest track to give the troops time to rest. With the exception of the Maltese cross on the right mudguard, the markings are similar to the vehicle in the photo above. It has also been fitted with a metal frame on the left mudguard for a command flag.



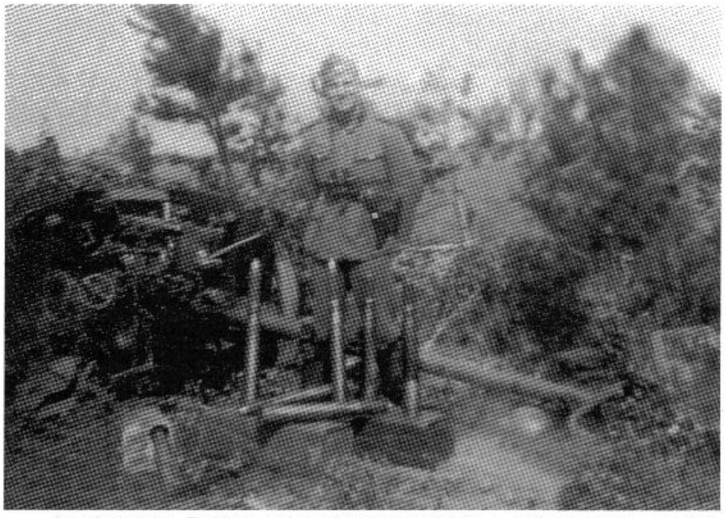
Mixed vehicles from 28.Jäger-Division pause on an earthen causeway constructed across a flooded area. The Maltese cross symbol is painted in yellow or dirty white on the right dispatch case on the motorcycle to the left, which appears to be a BMW R35.

Another Horch Kfz.12 medium cross country car with a 3.7cm PaK35/36 in tow and gun crew posing for a photo to send to the folks back home. Again, the vehicle is fitted with a command flag frame on the left mudguard. The two soldiers on the right are wearing the special leather bandoleer used by artillery crews for manhandling their guns.

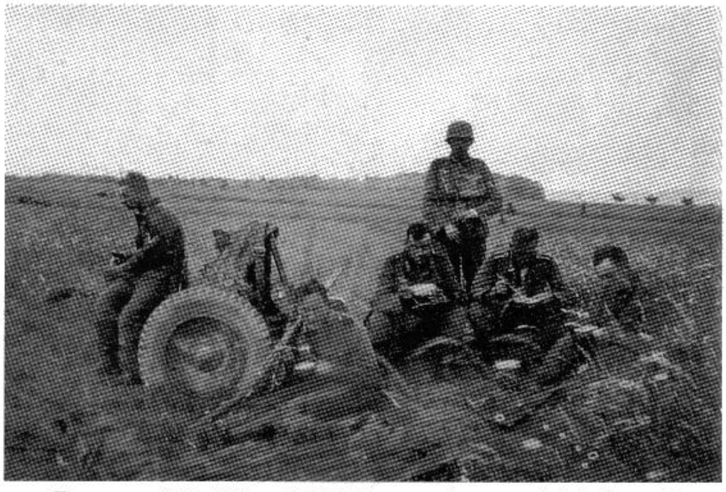




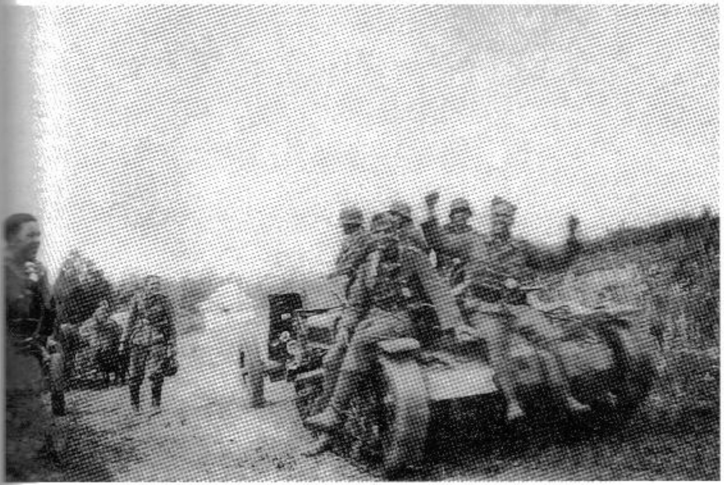
A 5cm PaK38 anti-tank gun emplacement in an open field waiting for the enemy to appear. The crew have made an attempt at concealing their position with straw but they are still dangerously exposed. After firing one or two rounds, they would be easily detected, drawing return fire on themselves.



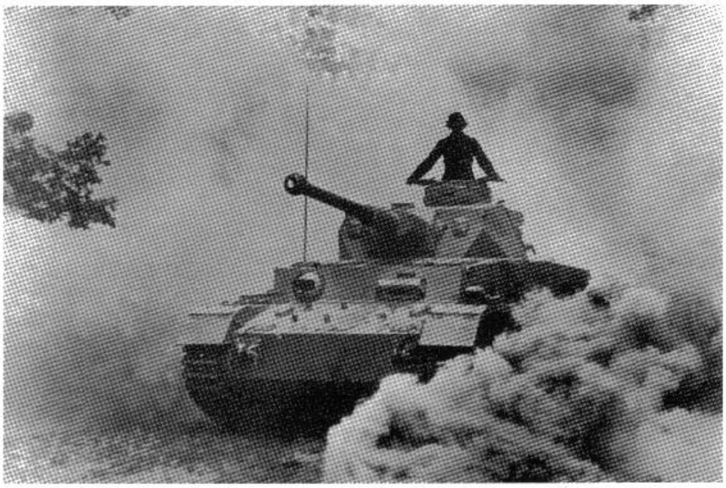
Another 5cm PaK38 anti-tank gun set up in a little more concealed position. Here the gun crew commander is posing with a variety of ammunition used with this weapon. The longer rounds on the left are Pzgr.Patr.39 and are painted black with an unpainted steel tip. They could penetrate 59mm of armor plate at 500meters with a muzzle velocity of 835m/s. The ones on the right are Pzgr.Patr.40 and are painted black. They were capable of penetrating 72mm of armor plate at 500meters with a muzzle velocity of 1180m/s.



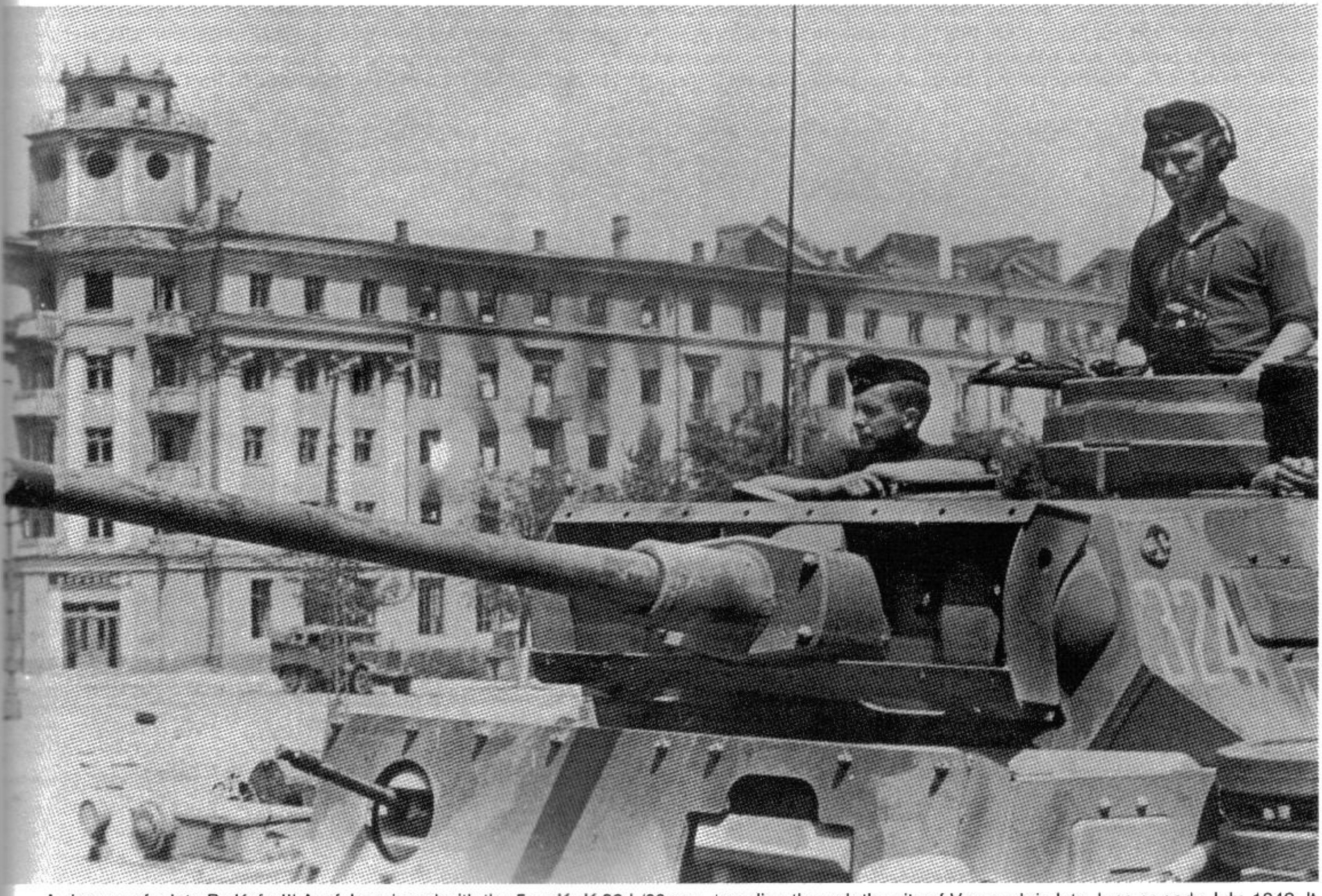
The crew of this 3.7cm PaK35/36 pause for a meal at their post in an open field. Though one of the best anti-tank guns of its day, its small size and limited protection could not have inspired much confidence in the men assigned to it.



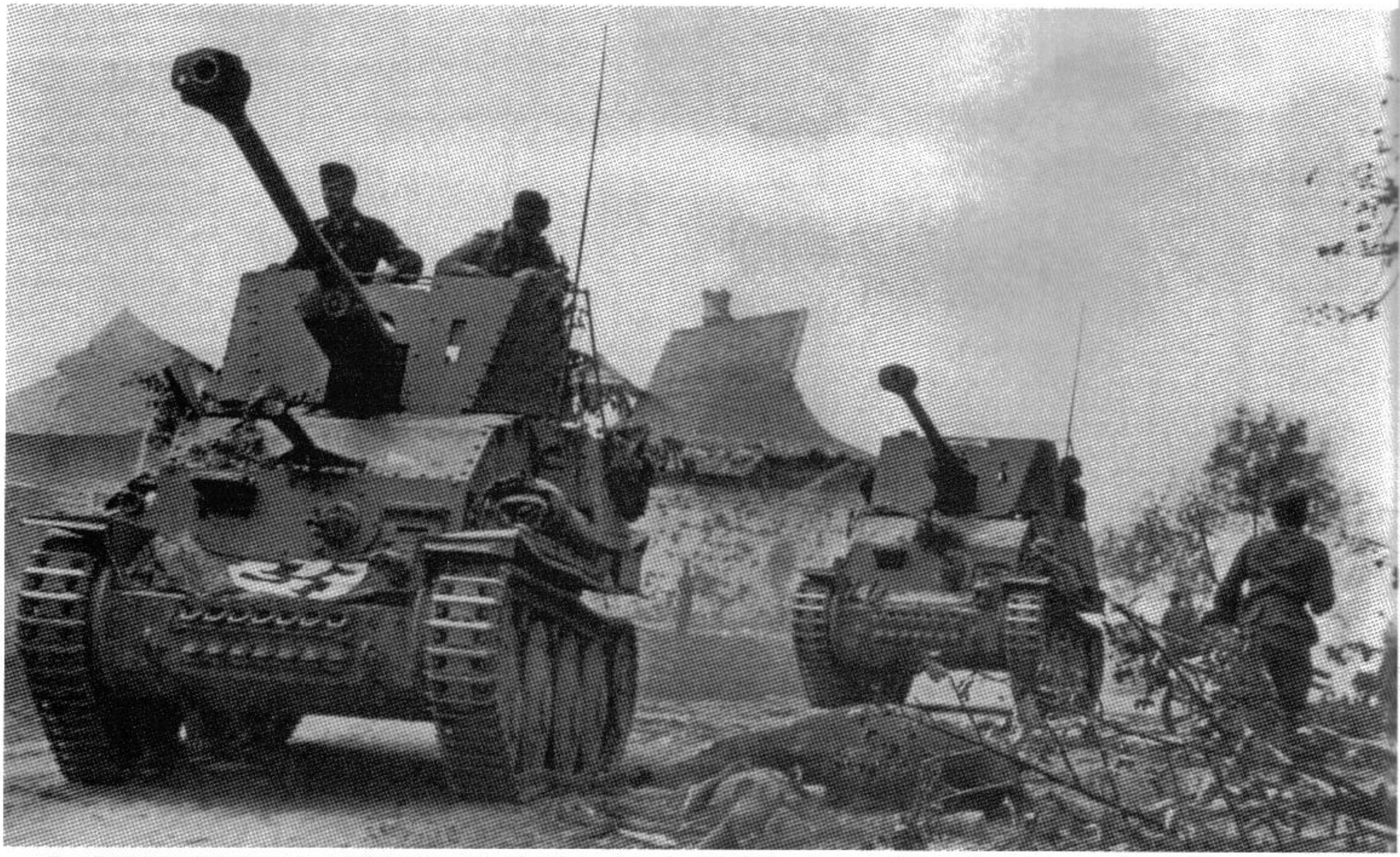
Another 3.7cm PaK35/36 gun crew enjoy a ride on a Renault UE 630(f) being utilized as a gun tractor. This little vehicle was perfect for short distance moves but would have been extremely uncomfortable on a long march.



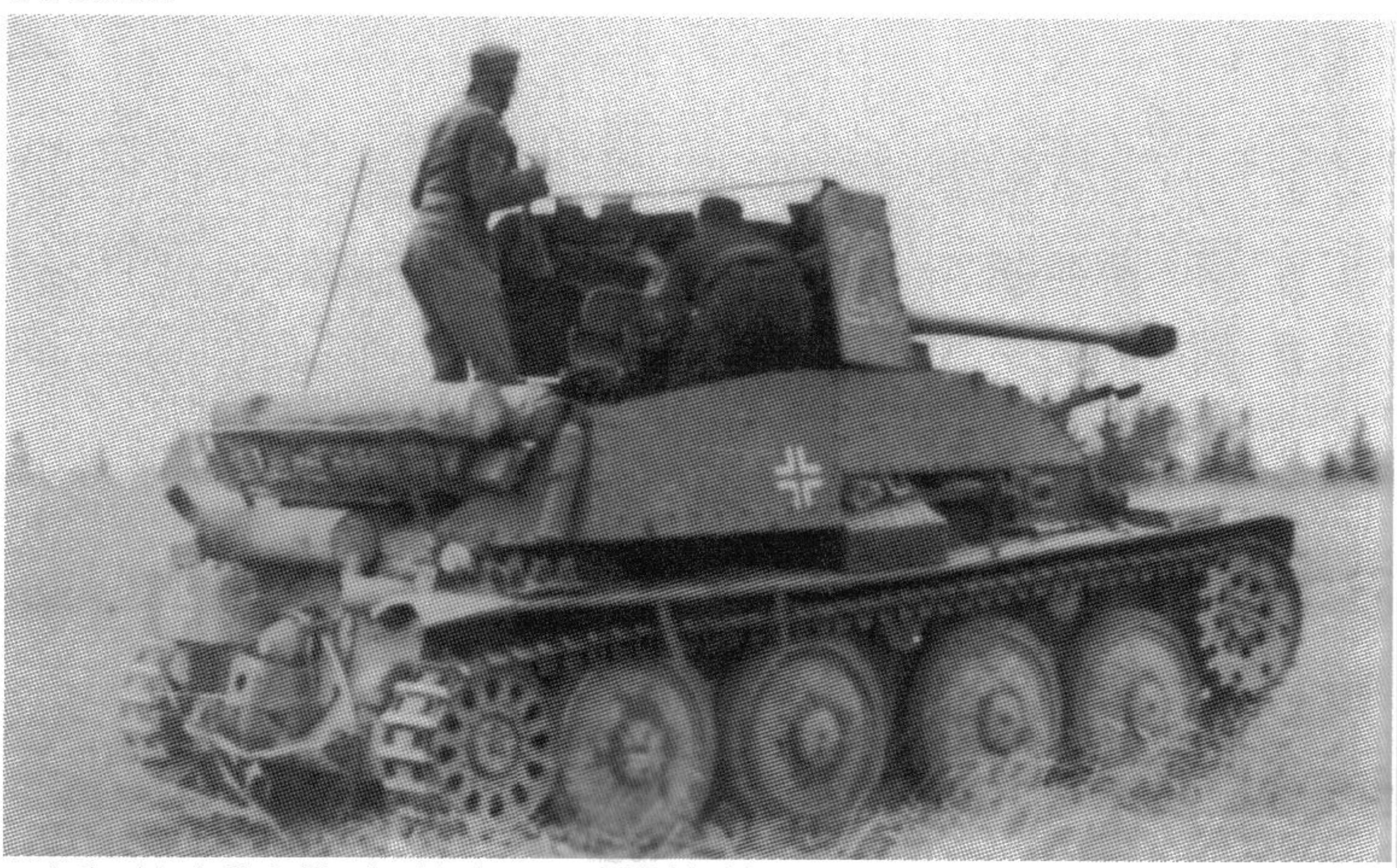
A new, very early Pz.Kpfw.IV Ausf.G. featuring the additional 30mm armor plates welded to the front of the hull and superstructure. The side vision flaps on the turret have been deleted, however, the loader's front vision flap is still fitted as is the early, globular muzzle brake normally associated with the Ausf.F2. The introduction of the 7.5cm KwK40 L/43 gun on the Ausf.F2 gave the German tank crews a new superiority over the better armed Soviet KV-1 and T-34 tanks. It is painted with the standard dark gray base which has been lightened by a coat of dust.



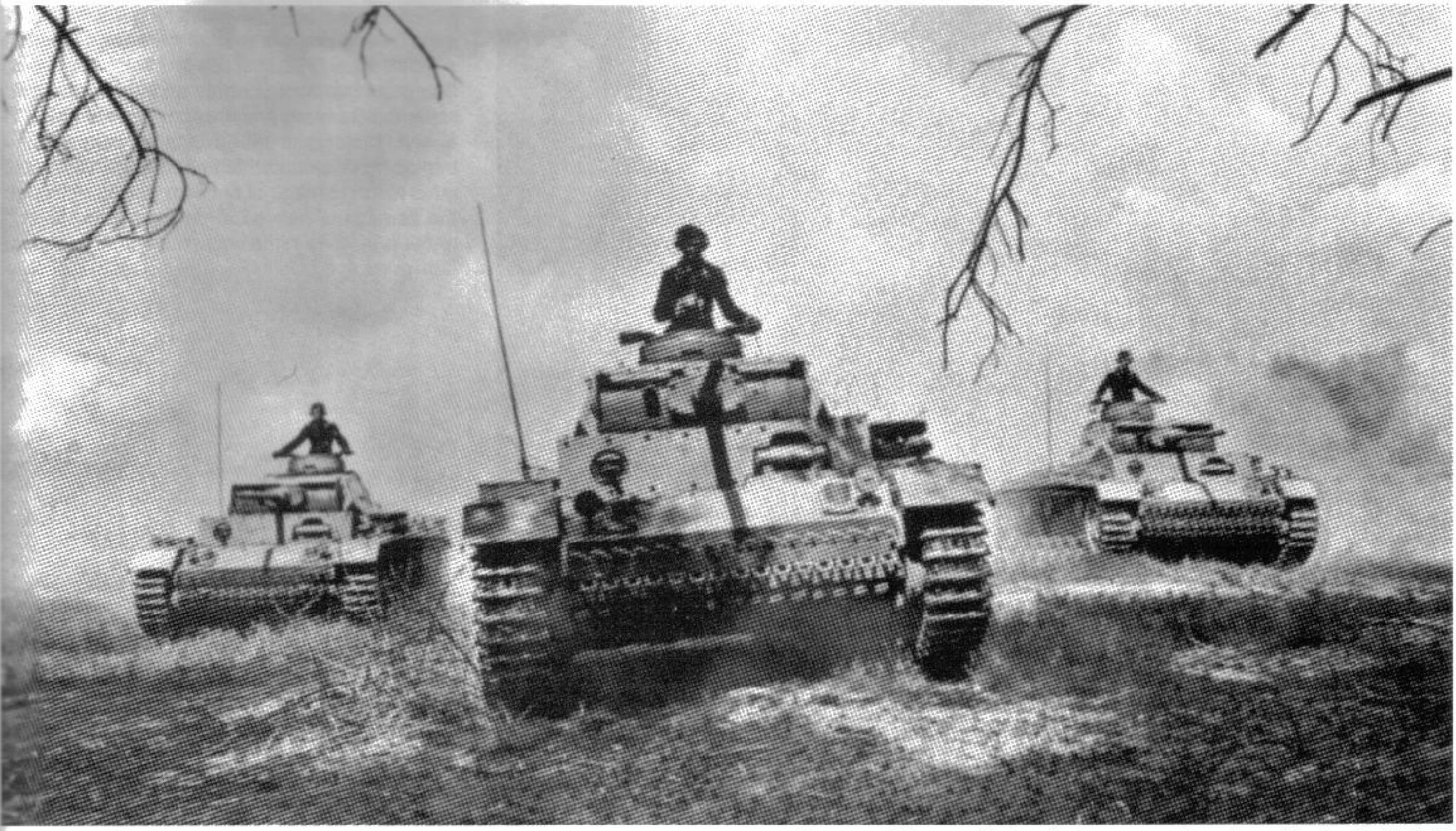
A closeup of a late Pz.Kpfw.III Ausf.J equipped with the 5cm KwK 39 L/60 gun, traveling through the city of Voronezh in late June or early July, 1942. It has been fitted with the 20mm spaced armor hull plate introduced on the Ausf.L and although the mounting plates on the mantlet have been installed, the 20mm plate is yet to be fitted here. The vehicle is finished in dusty coat of dark gray with a camouflage pattern of large, green irregular spots. The tactical number '324' is painted on the side of the turret in white along with a white outline square below the vision flap.



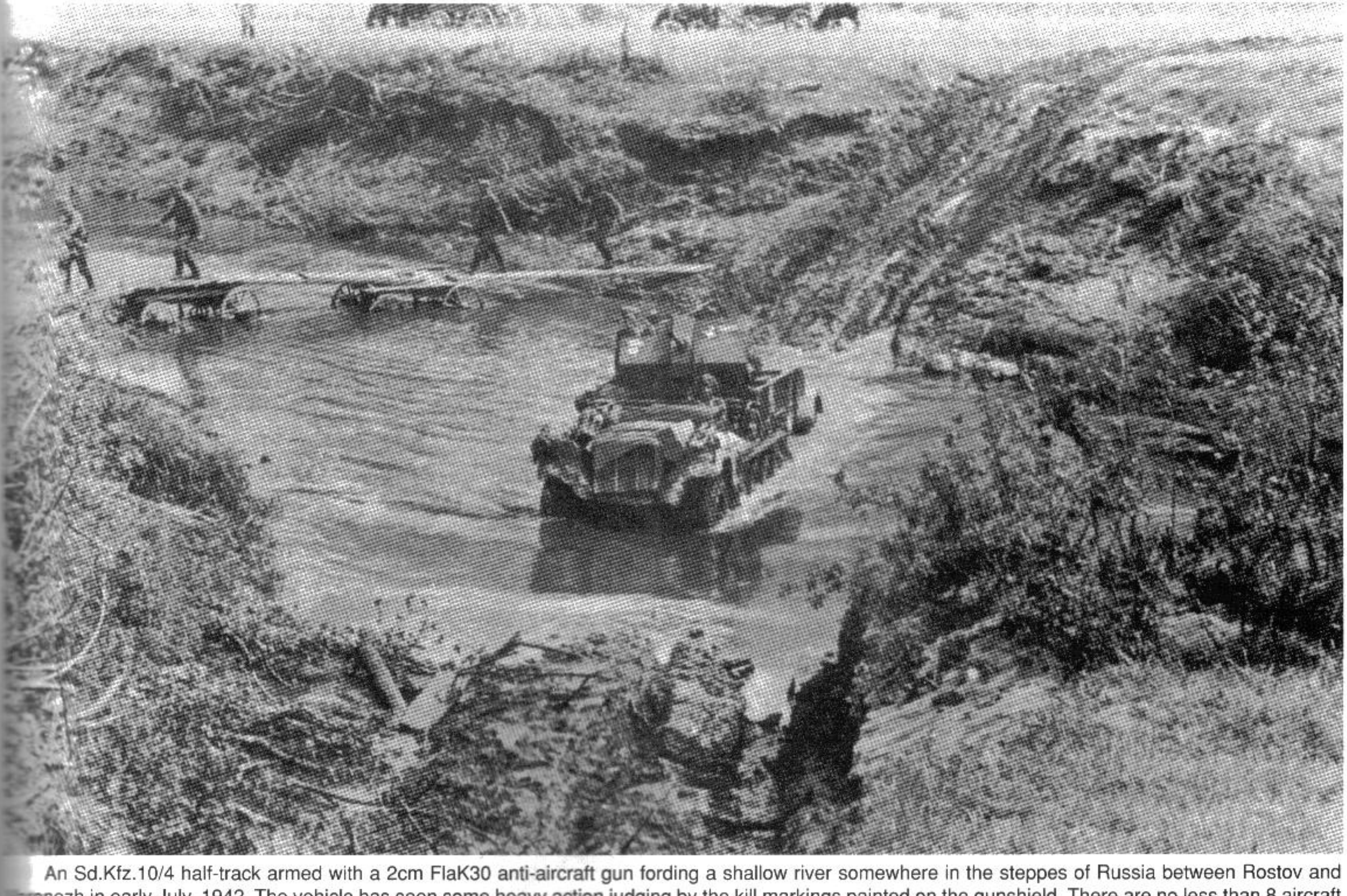
Two Panzerjäger 38(t) fur 7.62cm PaK36(r) Marder III tank destroyers. Over 350 of these vehicles were built from April to October 1942 and served mainly with Panzerjäger units in Russia. It was a simple adaptation of the obsolete Pz.Kpfw.38(t) tank chassis and captured stocks of the Soviet 7.62cm Field Gun Model 1936. The barrel was rechambered to accept a 7.5cm PaK40 cartridge. Note the German national flag draped over the front of the leading vehicle for air recognition.



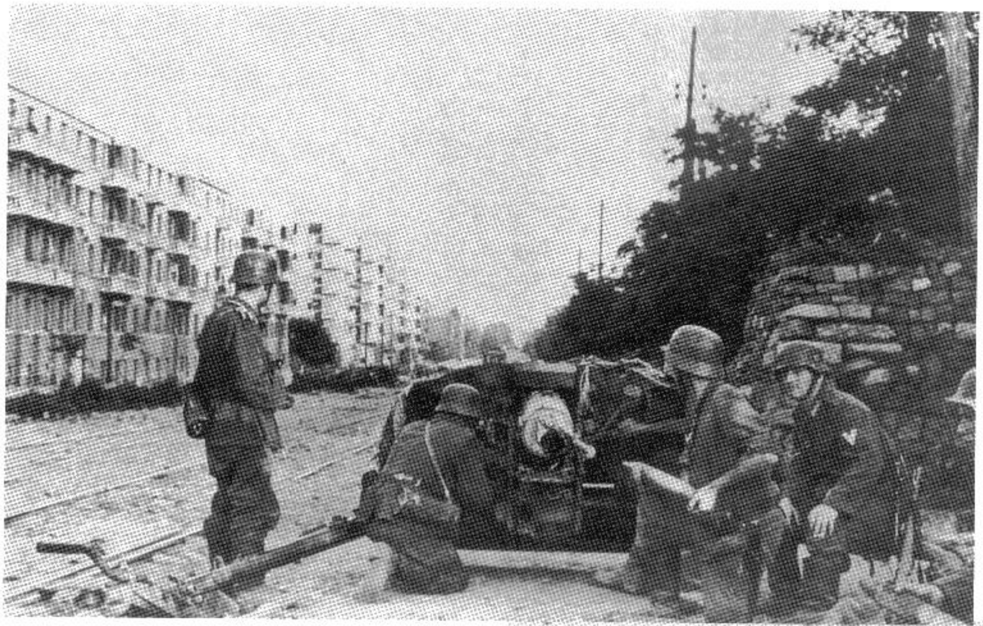
Another photo of a Marder III in action during the summer of 1942. It is obvious the space within the crew compartment was very limited and only provided partial protection against enemy small arms fire and shell splinters.



Three Pz.Kpfw.III Ausf.L in what appears to be a propaganda photo of charging Panzers. The 5cm Kwk39 L/60 gun was introduced in the Pz.Kpfw.III Ausf.J in December 1941 and continued with the Ausf.L until December 1942. Their armored protection was upgraded by the addition of 20mm spaced armor plates on the upper hull and mantlet, however, due to the late delivery of a new torsion bar counter-balance for the main gun, many did not receive the mantlet armor.

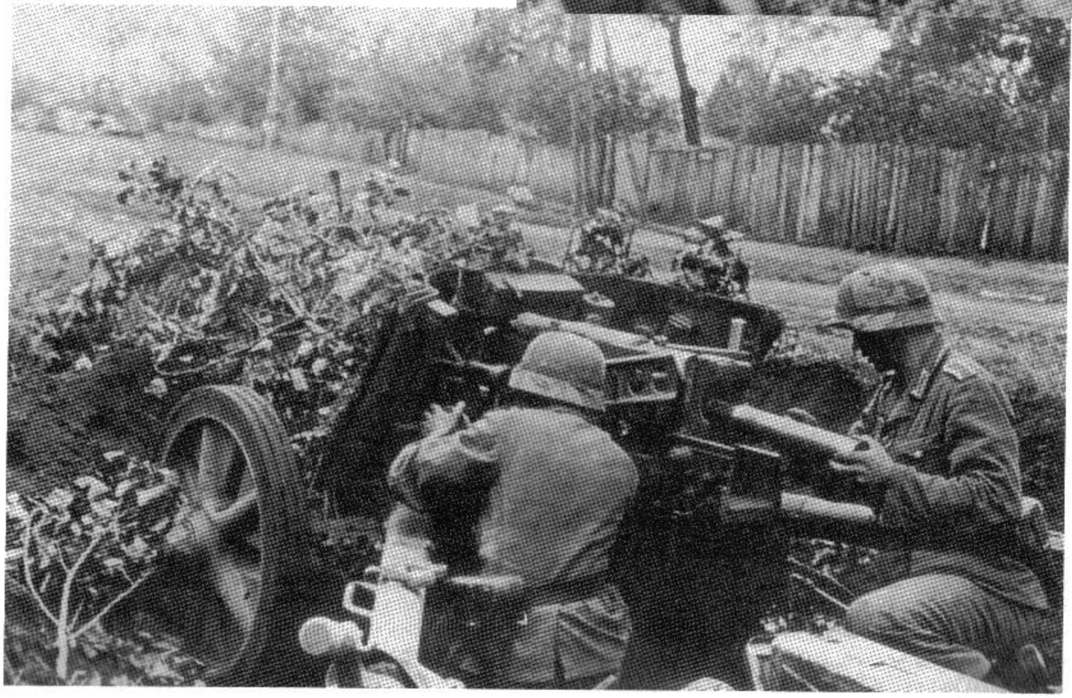


An Sd.Kfz.10/4 half-track armed with a 2cm FlaK30 anti-aircraft gun fording a shallow river somewhere in the steppes of Russia between Rostov and Voronezh in early July, 1942. The vehicle has seen some heavy action judging by the kill markings painted on the gunshield. There are no less than 8 aircraft shot down and 5-6 light armored vehicles destroyed. On the left mudguard, a white circle has been painted with an illegible marking inside.



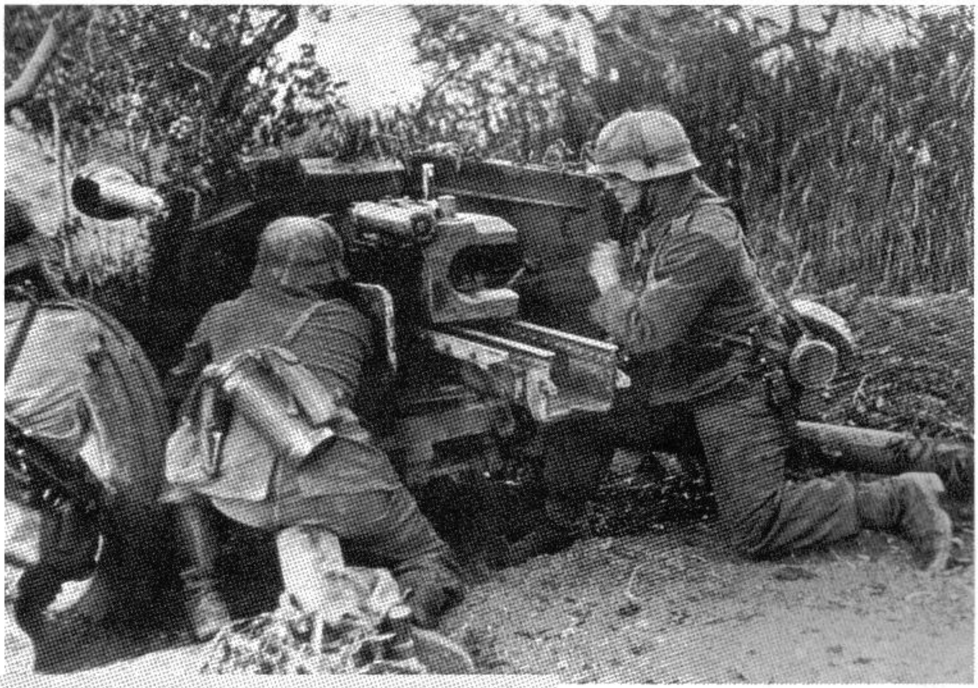
A 7.5cm PaK97/38 anti-tank gun and its six man crew guard a street in the newly captured city of Rostov on Don in the middle of July, 1942. The gun was introduced as an interim measure when the Germans first encountered the new KV-1 and T-34 tanks in Russia, by adapting the barrels from captured French Model 1897 field guns to the carriage of the 5cm PaK38. Although the carriage is painted in dark gray, the breech remains in white in the same manner as standard tank guns.

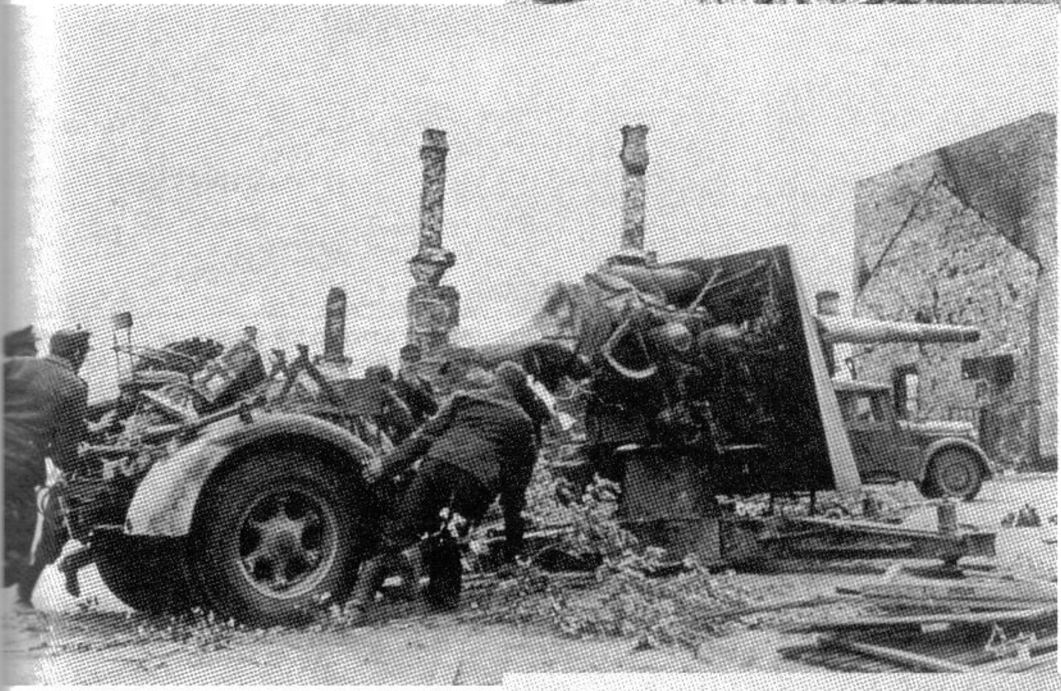
Two anti-tank guns photographed in the heat of battle in late July or early August, 1942. They are 5cm PaK38 which entered service in late 1940 and during 1941 and early 1942, was the only anti-tank gun in the German arsenal that could defeat the T-34 until sufficient supplies of its successor, the 7.5cm PaK40 were available. The muzzle brake on the nearest gun has been removed by the censor.



Few Soviet tanks were safe at ranges below 500m when they appeared in the sights of the 5cm PaK38, especially when using the powerful, but uncommon, Pzgr.Patr.40, capable of penetrating 116mm of armor plate at that distance. This was drastically reduced to 72mm at a range of 1000m. Here we can see one of these guns in action on the outskirts of a Russian village near Achtyrka. As well as camouflaging their gun, the crew have also camouflaged their helmets, probably with mud.

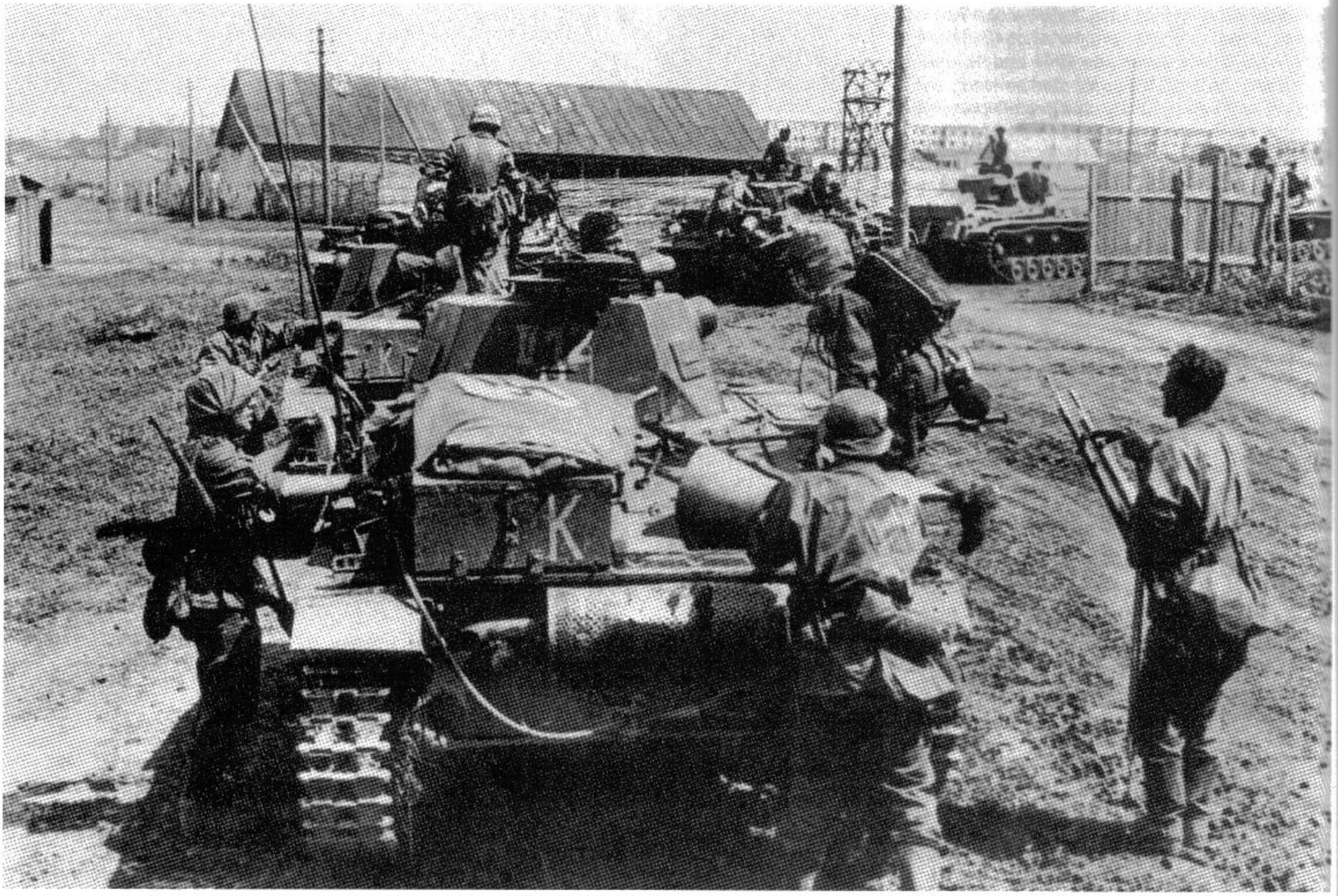
A similar photo showing the crew of a 7.5cm PaK40 in action in the summer of 1942. These guns were introduced in late 1941 and so were fairly rare at this time. By comparison, the Pzgr.40 ammunition of this gun was capable of penetrating 154mm and 133mm of armor plate at ranges of 500m and 1000m respectively.



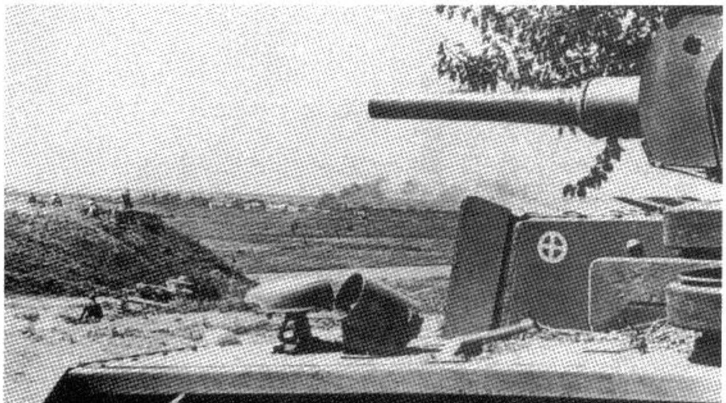


The 8.8cm FlaK18 anti-aircraft gun was a large, heavy weapon to handle in the field, but on the other hand, it was able to provide certain success against all enemy armored targets. Here, the gun crew is struggling to maneuver the carriage back under the gun to change positions in the Stalingrad area in September, 1942.

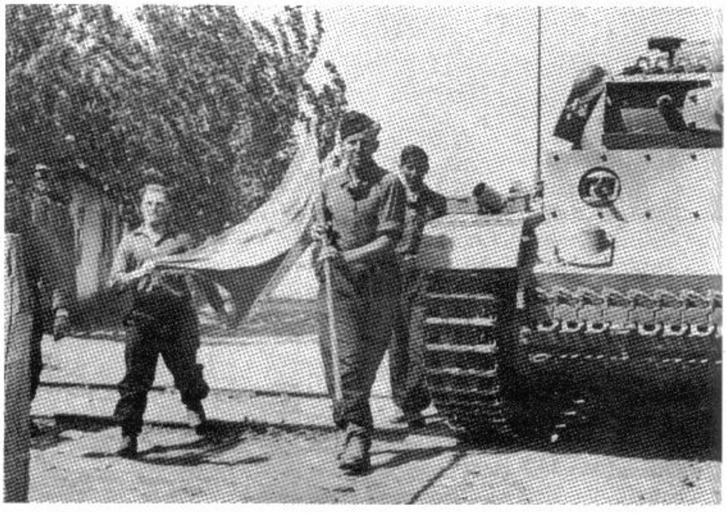
Two more 8.8cm FlaK18 gun crews move their guns into position somewhere in the Caucasus in late September, 1942. Most probably from a Luftwaffe anti-aircraft unit, they are marked in the style of normal Wehrmacht artillery units with a letter, here a white 'C', painted on the recuperator housing and the mudguard of the trailer. The gun in the background has 4 white kill rings painted around the barrel.



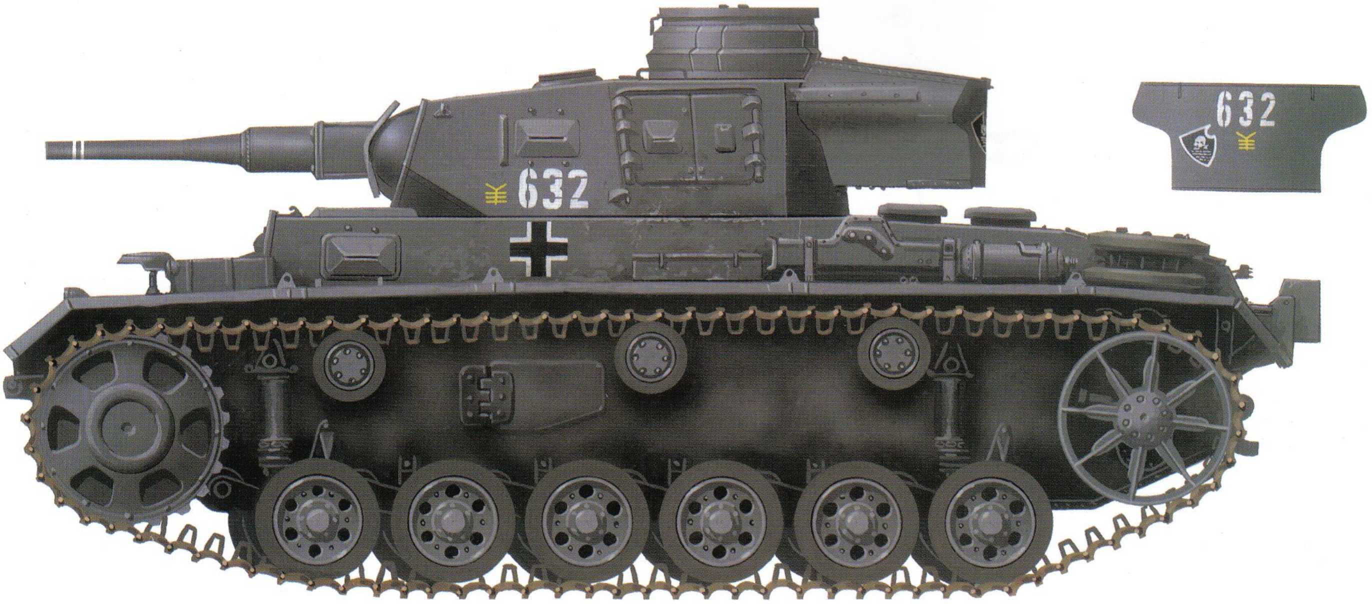
German infantry climb aboard tanks from 13.Panzer-Division entering Rostov at the end of July, 1942. Heading up the column are four Pz.Kpfw.III followed by two Pz.Kpfw.II Ausf.A-C, the closest of which, is marked with the tactical number 'II12' indicating it is a second battalion staff vehicle. Also visible is a white letter 'K', a remnant of their former association with Panzer-Gruppe von Kleist. It is also carrying a German national flag draped over a box on the engine deck for aerial recognition. One of the soldiers is equipped with a mine detector. The pack on his back contains the electronic controls and batteries for operating the device, which can be seen on the engine deck in front of him.



An early Pz.Kpfw.III Ausf.J with the 5cm KwK L/42 gun which has been backfitted with a 20mm spaced armor plate on the front of the upper hull and brackets for a 20mm plate on the mantlet. The tactical sign for 13.Panzer-Division is clearly seen painted in yellow on the side of the hull. Of special interest is the installation of the S-Minenwerfer on the mudguard otherwise only seen on the Tiger I. This photo was taken in the Kuban during the summer of 1942.

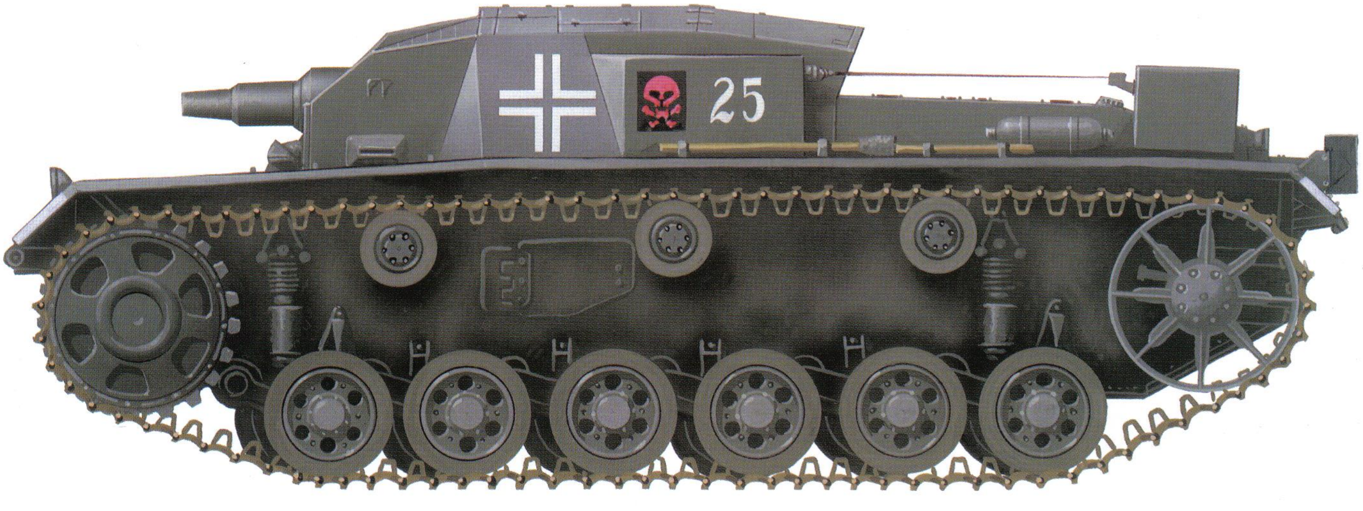


The crew of this Pz.Kpfw.III Ausf.L display a captured Soviet Army banner during the fighting in the Kuban in August, 1942. 13.Panzer-Division fought in this area with SS-Division 'Wiking', together forming LVII.Panzerkorps. This vehicle has also been fitted with the S-Minenwerfer.



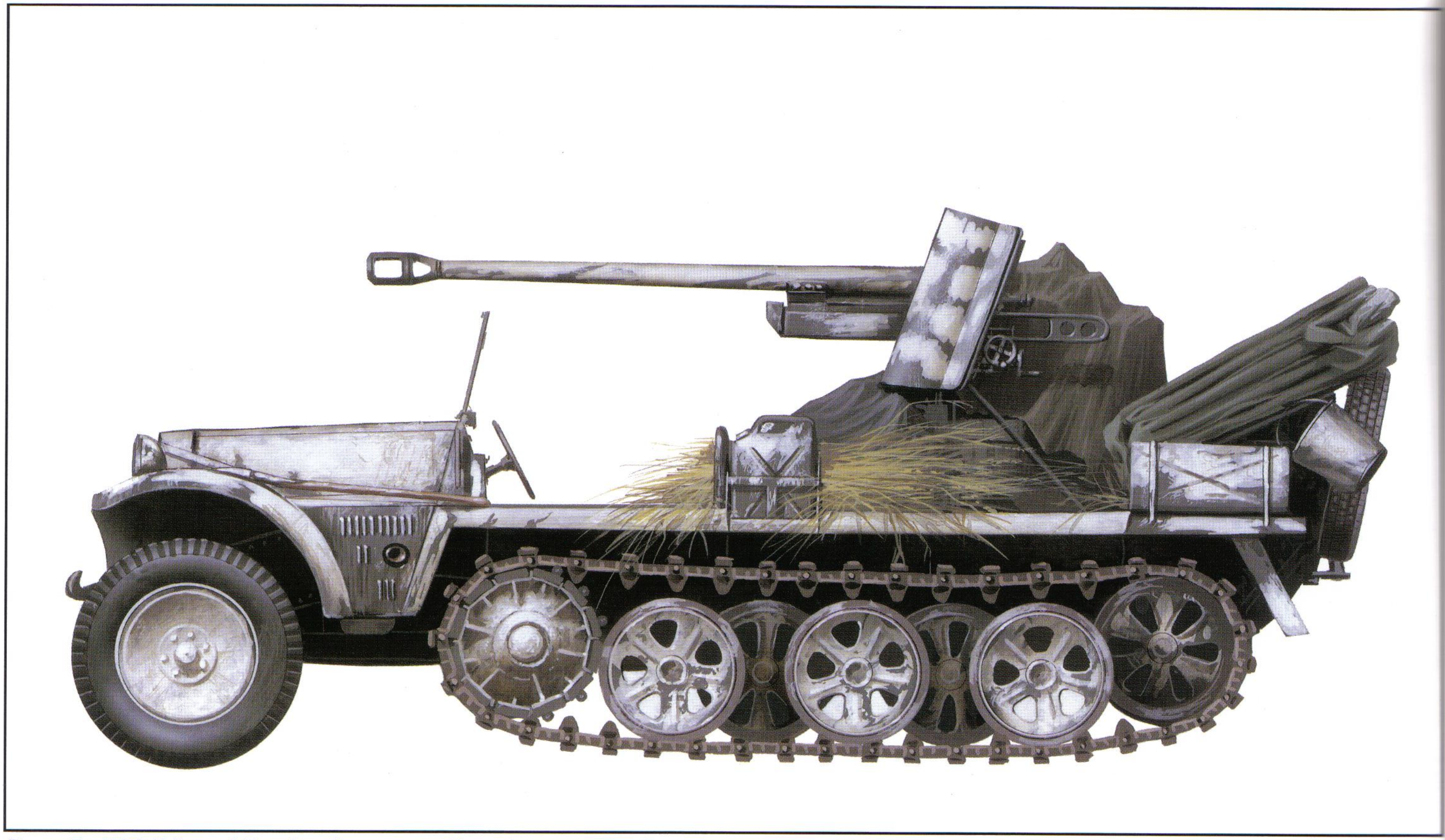
Pz.Kpfw.III Ausf.H, II./Pz.Rgt.18, 18.Panzer-Division, Russia, September 1941

This tank is finished in overall dark gray and carries the divisional emblem, a white skull over ripples of water within a white outlined black shield, painted on the rear of the turret stowage bin. The emblem recalls its formation from one of the original Tauch-Panzer-Abteilungen in the summer of 1940, although this vehicle is not one of those specially equipped tanks. The tactical sign of 18.Panzer-Division, a yellow 'Y' with three horizontal bars through it, is painted on the sides of the turret in front of the white, three digit tactical number, both of which are also repeated on the rear of the bin. The tactical sign appears on the front plate beside the driver's visor as well. Two white victory markings have been painted on the end of the gun barrel.



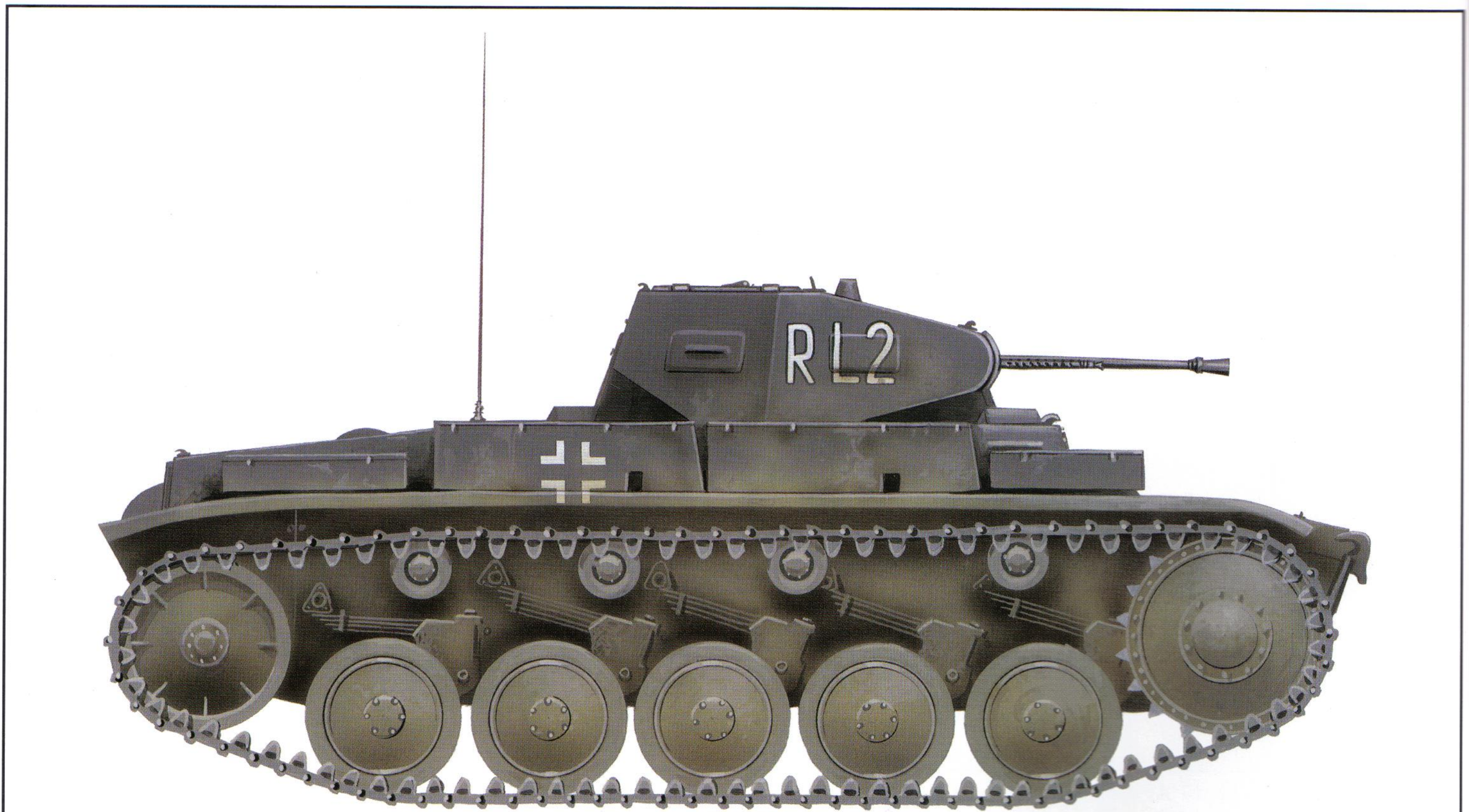
StuG.III Ausf.B, 1./StuG.Abt.192, Russia, summer 1941

The vehicles of StuG.Abt.192 carried their 'Totenkopf' unit emblem prominently displayed on the front plate beside the gun, both sides of he vehicle and on the rear of the smoke candle rack housing. The emblem was painted a different color in each battery, red in first battery, yellow in second battery and green in third battery, all in a black rectangle. They used a two digit tactical number system that was painted in white beside the unit emblem, except on the front, where they were painted above the emblem on the Ausf.Bs and beside on the later versions. Some also had the tactical sign for a self-propelled gun unit painted in yellow on the front of the hull with the battery and the unit number, '1/192', painted inside. Both the early and later style national crosses were seen. A number of them also carried white road width markings on heir front and rear mudguards.



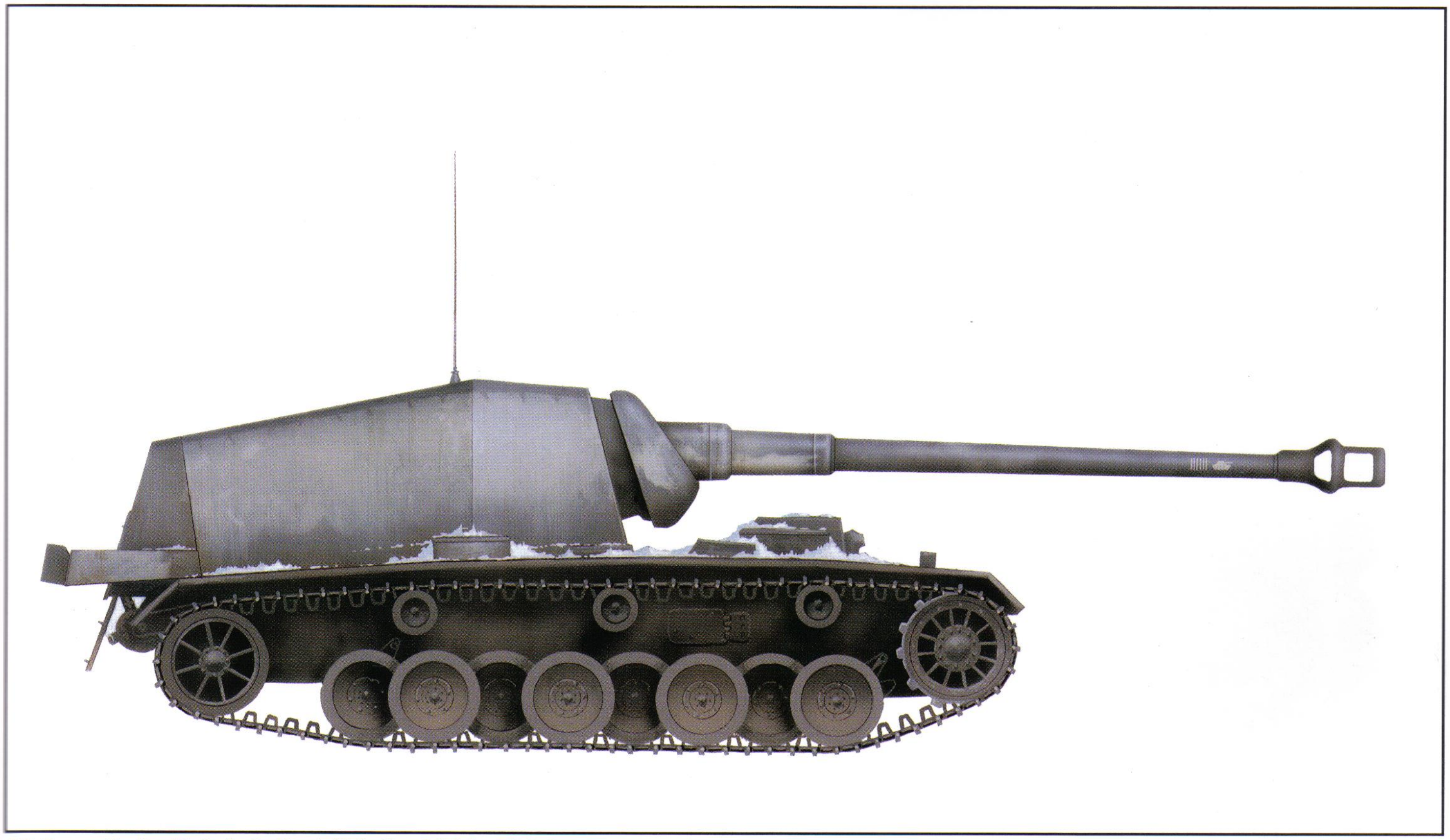
5cm PaK38(Sf) auf Zugkraftwagen 1t, unknown Waffen-SS unit, Russia, winter 1941/42

This self-propelled anti-tank gun was made by mounting the 5cm PaK38 anti-tank gun on the unarmored chassis of the Sd.Kfz.10 Demag D7 half-tracked prime mover. It is painted overall dark gray and has had a coat of white winter camouflage paint applied in random patches. Later vehicles received light armor plate to the cab and engine compartment.



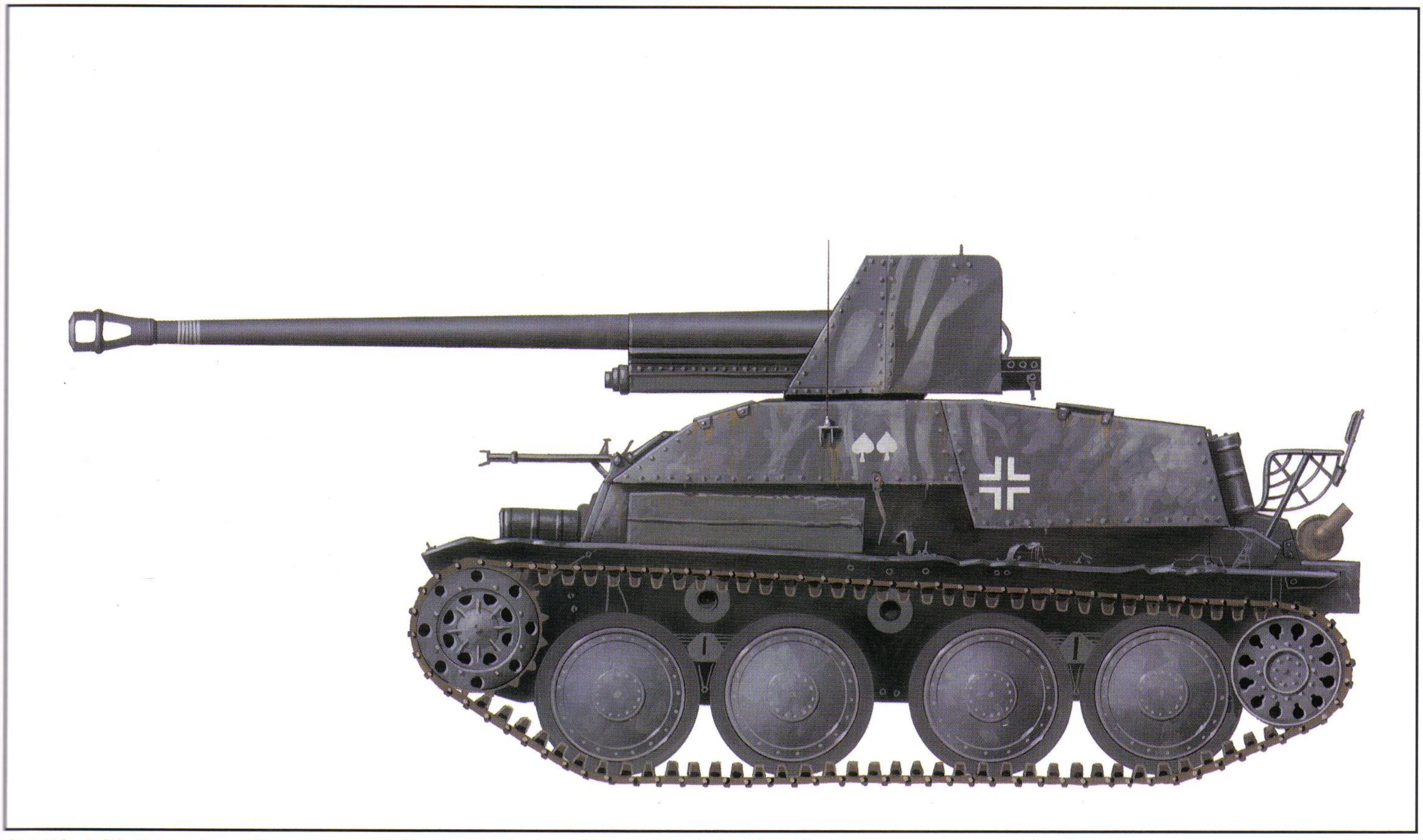
Pz.Kpfw.II Ausf.A-C, Pz.Rgt.6, 3.Panzer-Division, Caucasus, October 1942

This early production vehicle is painted in overall dark gray and is covered in a heavy layer of dust. The three digit tactical number painted on the side of the turret is unusual in that it is painted in white with a thin black outline. They indicate it is a staff vehicle, though the meaning of the number is unknown. A standard white outline national cross is painted on the side of the stowage bin and extends down onto the edge of the mudguard.



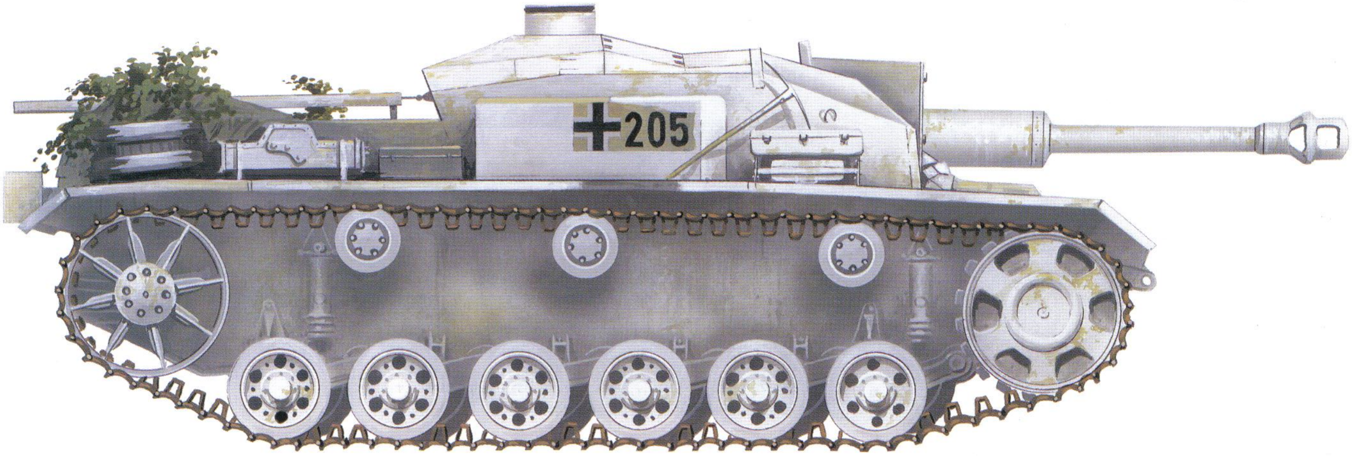
12.8cm Selbstfahrlafette L/61 (Pz.Sfl.V), 521.Pz.Jg.Abt., Stalingrad, winter 1942-43

Only two of these experimental self-propelled anti-tank guns were produced in early 1942, and both were assigned to 521.Pz.Jg.Abt. which was destroyed at Stalingrad. This one was painted in overall dark gray and had a very thin coat of white winter camouflage paint applied, leaving a strip of the original color where the canvas cover over the crew compartment had been. There are six small victory stripes painted on the end of the gun barrel along with a tank silhouette.



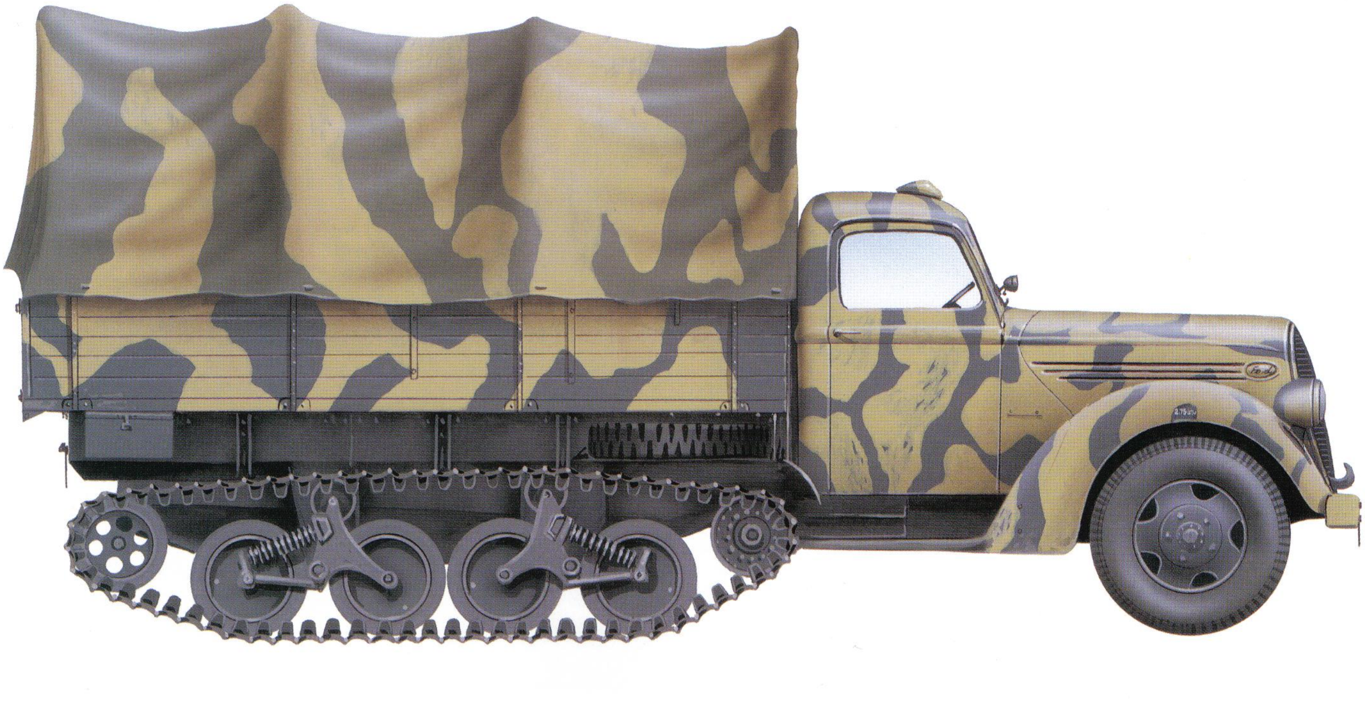
Sd.Kfz.139 'Marder III', unknown Pz.Jg.Abt., Stalingrad, winter 1942-43

This vehicle is painted in overall dark gray and has streaks of mud applied to it for camouflage. Markings are limited to a white outline national cross, two white playing card spade symbols painted on the side and six white victory rings on the gun barrel.



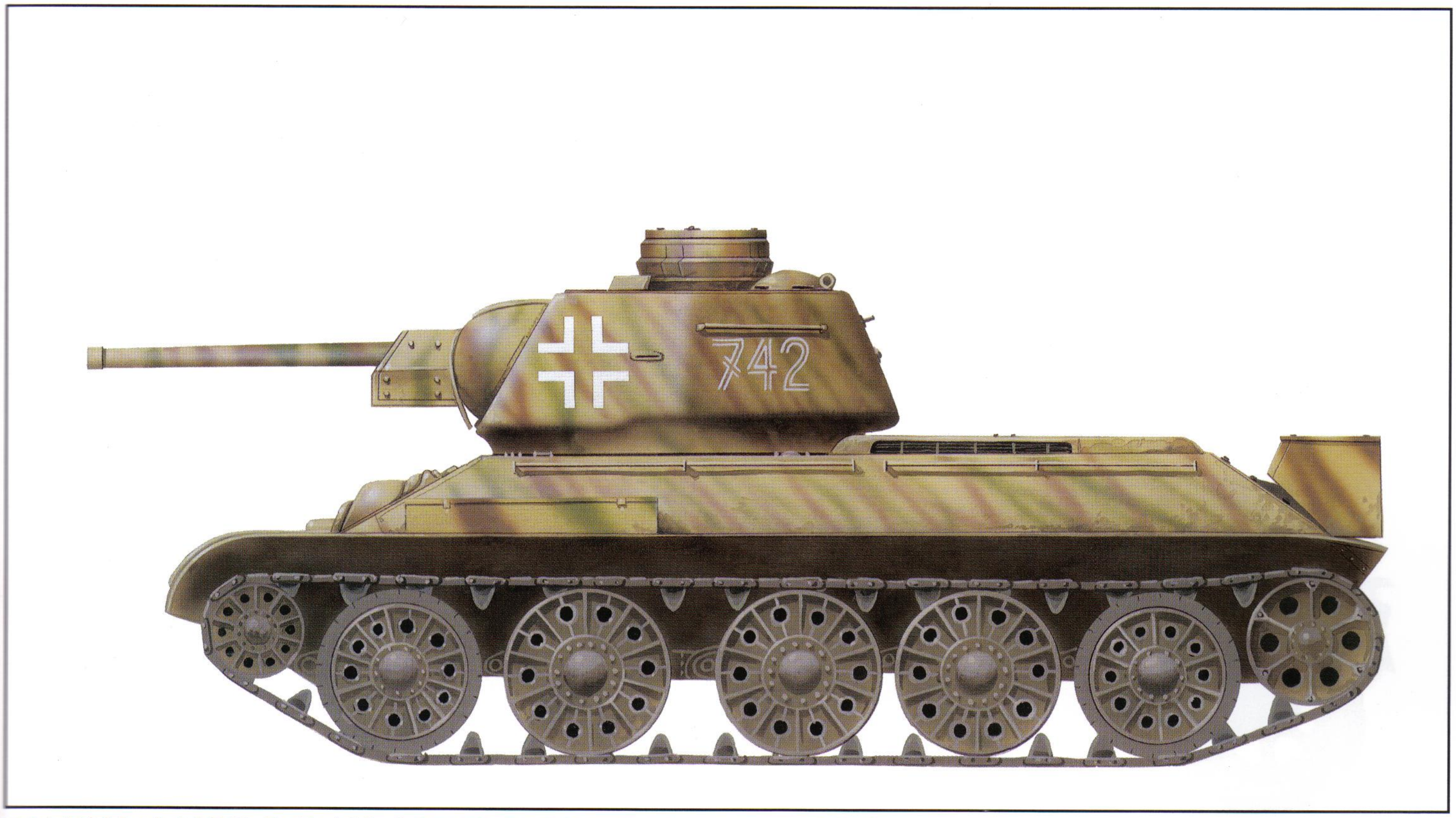
StuG.III Ausf.F, 2./StuG.Abt.201, Don Bend, January 1943

This StuG.III Ausf.F has received a uniform application of white winter camouflage paint over the dark sand base. A space has been left for the three digit tactical number, '205', painted in black in front of the standard white outlined black national cross.



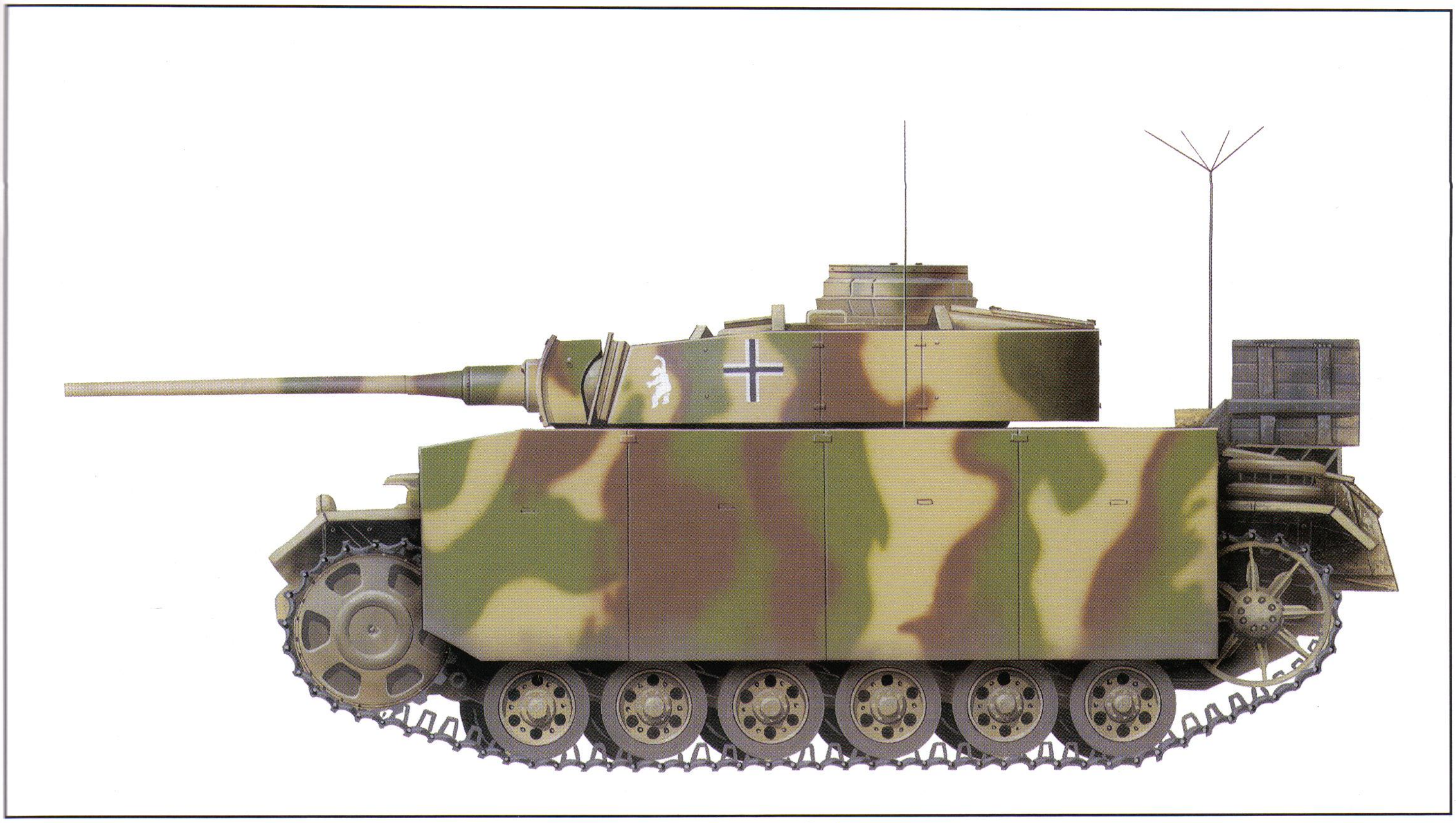
Ford G917T 'Maultier', unknown Infanterie-Division, Russia, summer 1943

This new Ford 'Maultier' (Mule) is finished in overall dark gray with a bold camouflage pattern of dark sand patches. Markings include the tactical sign for a motorized infantry division painted in white on the left rear of the cargo compartment and on the left front mudguard along with the vehicle number plate on the rear only. Tire pressure markings are also painted on the sides of the front mudguards.



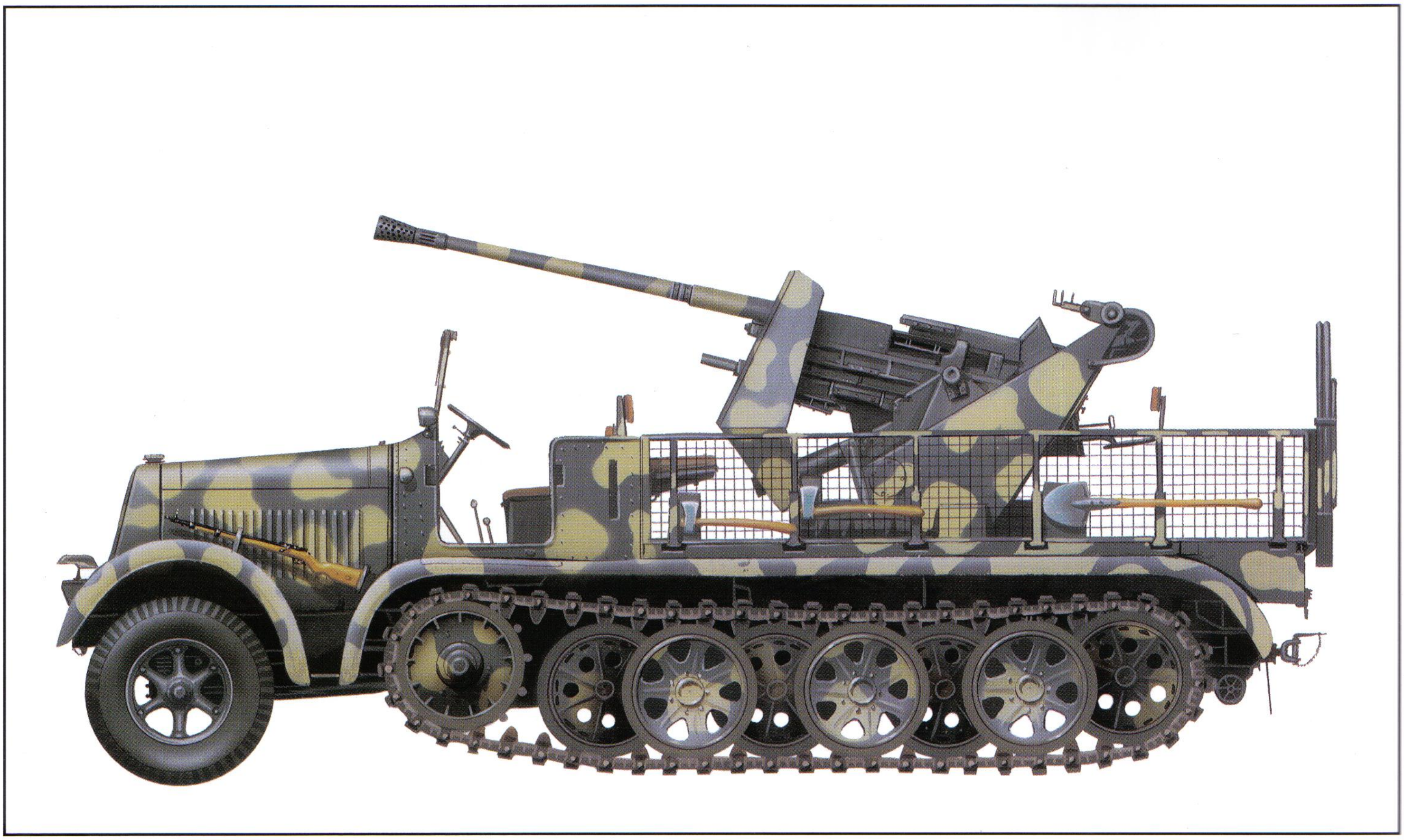
T-34/76 Model 1943, Pz.Rgt.11, 6.Panzer-Division, Russia, summer 1943

This captured Russian T-34/76 Model 1943 has been repainted by the Germans in dark sand with a camouflage scheme of light green and brown lines painted in a diagonal stripe pattern. An oversize white outline national cross has been prominently applied to the turret to identify it to German gunners along with a white outline three digit tactical number, '742', indicating the second vehicle in the fourth platoon of the seventh company. On the front plate, a white 'Op' was painted which signified the commander of Pz.Rgt.11, Oberst Herman von Oppeln-Bronokowski. The vehicle has been fitted with a cupola taken from a damaged Pz.Kpfw.III or Pz.Kpfw.IV.



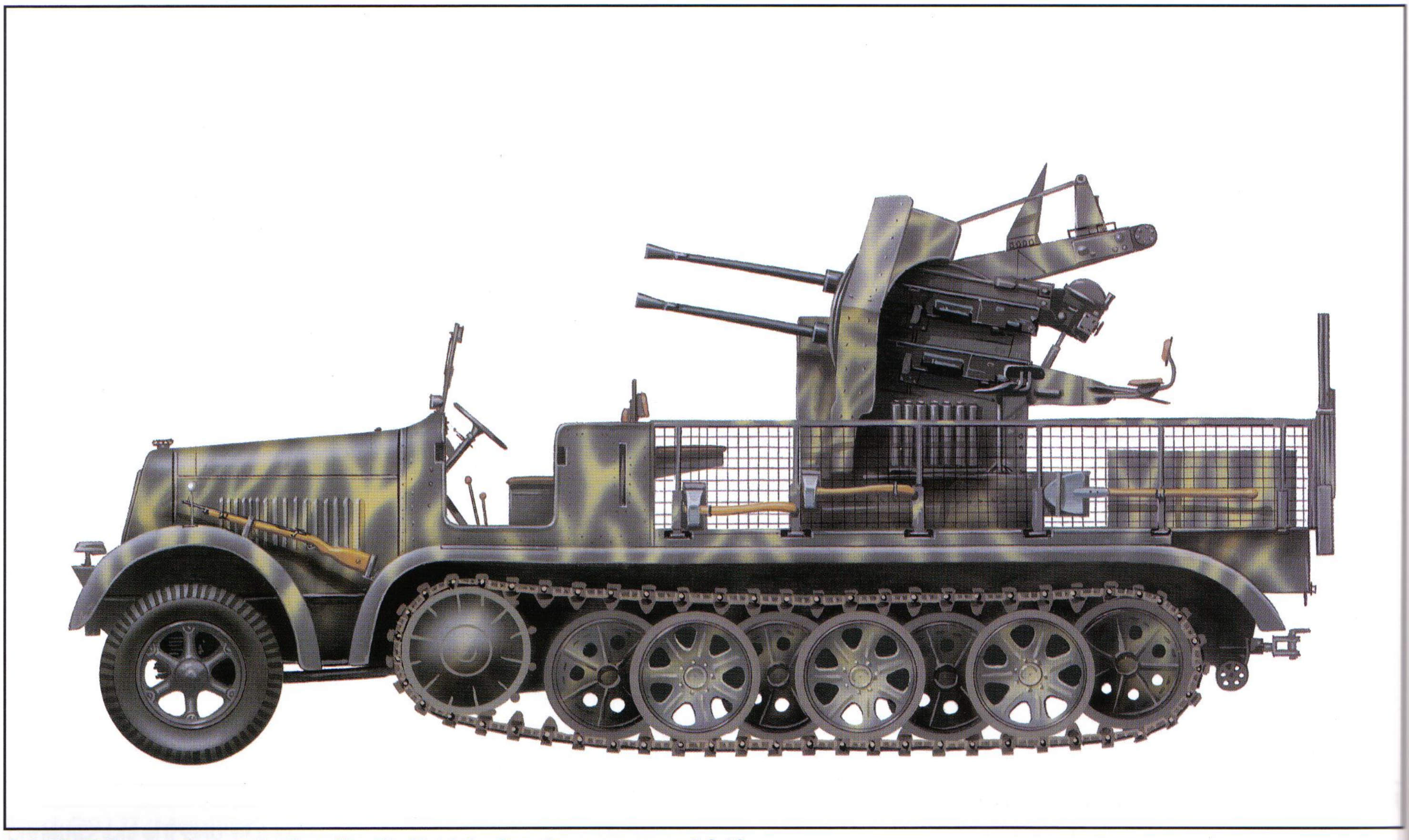
Pz.Bef.Wg.III Ausf.J, Pz.Rgt.6, 3.Panzer-Division, Russia, summer 1943

All that distinguishes this as a command vehicle are the additional antennas, one on the left side of the vehicle and the star antenna mounted on the right beside the engine deck. Finished in dark sand, it has a textbook camouflage scheme of green and brown patches applied over the whole vehicle, including the backfitted turret and hull schürzen. Markings are limited to the white 'Berlin Bear' that was used by 3.Panzer-Division, and an early style narrow national cross in black with a white outline.



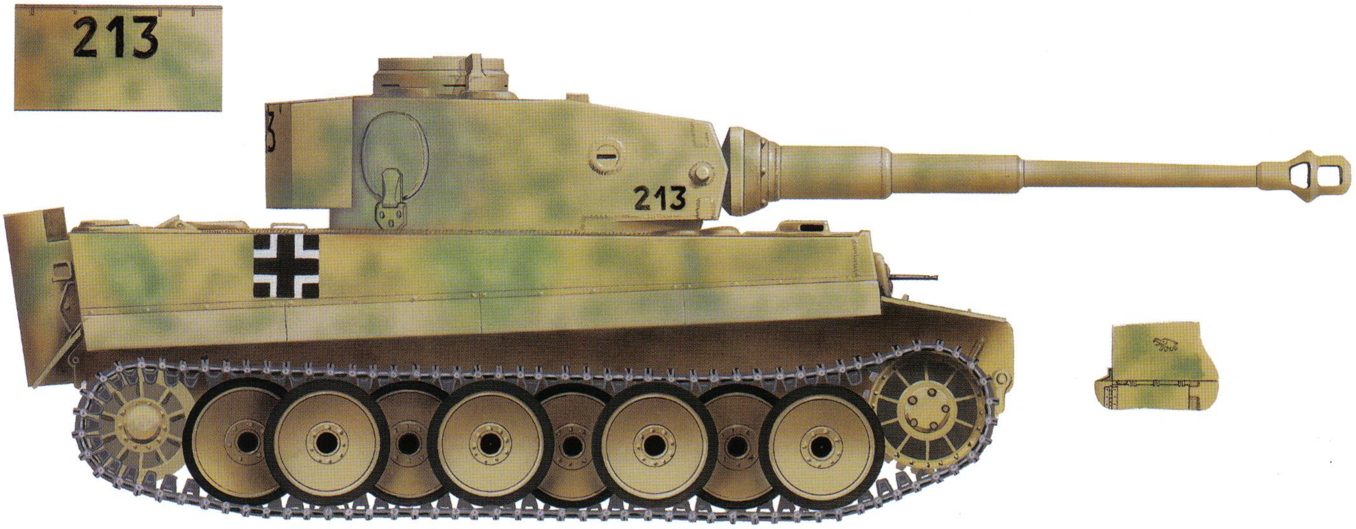
Sd.Kfz.7/2, unknown Luftwaffe FlaK.Abt., Russia, summer 1943

This FlaK half-track, armed with a 3.7cm FlaK36 anti-aircraft gun, is finished in its original dark gray paint and has a camouflage scheme of large spots of dark sand in a random pattern over the whole vehicle, including the gun shield and parts of the gun itself, probably applied with a brush.



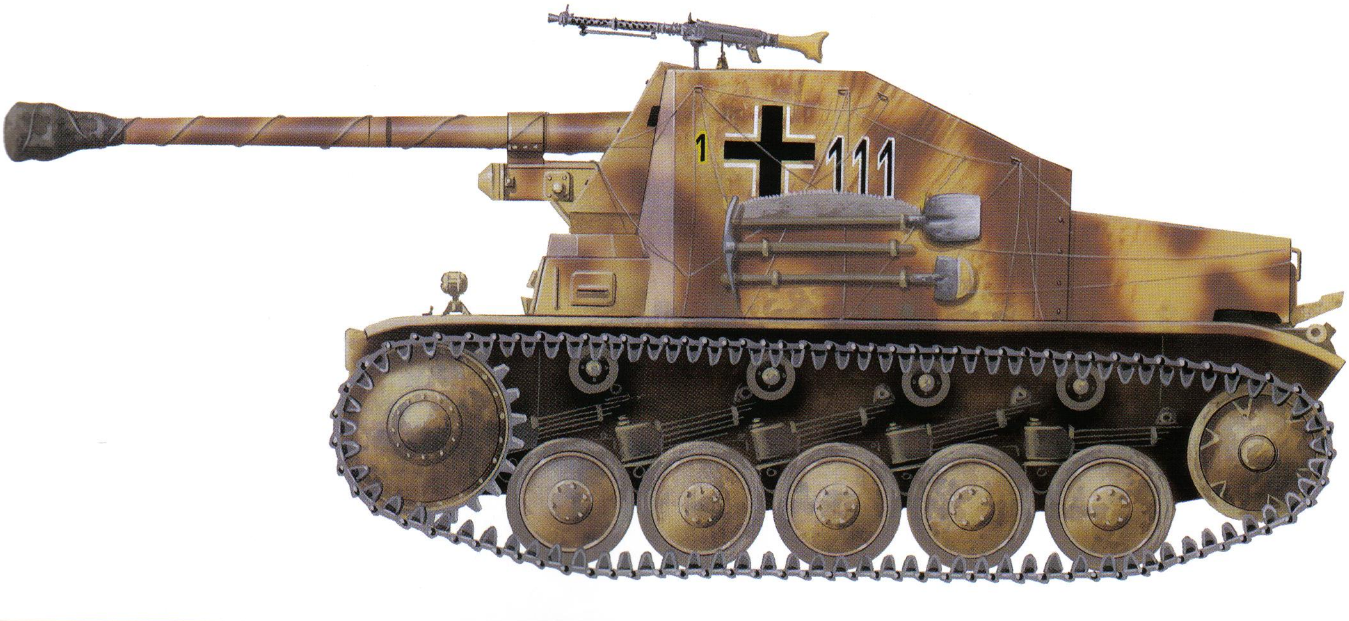
Sd.Kfz.7/1, unknown Luftwaffe FlaK.Abt., Russia, summer 1943

This Sd.Kfz.7/1, armed with a 2cm Flakvierling 38, has a camouflage spray of dark sand lines applied in a wavy pattern over the vehicle and gun.



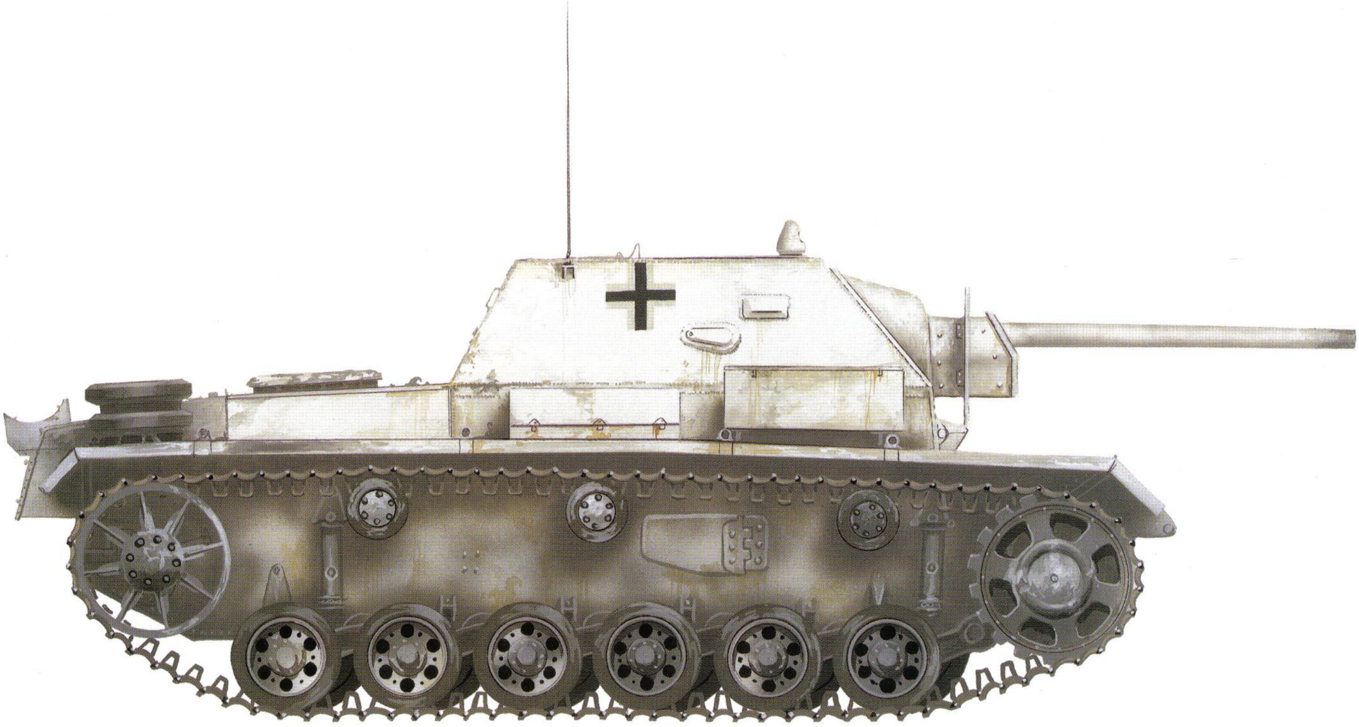
Pz.Kpfw.VI Tiger I Ausf.E, 2./s.Pz.Abt.502, Russia, summer 1943

This early model Tiger I is painted in overall dark sand with a very light camouflage pattern of green patches. Tigers of 2.Kompanie carried a large national cross painted within a black square, located above the 7th and 8th roadwheel on each side of the hull. The three digit tactical number, also in black, is painted on the lower front side of the turret and has been repeated on the rear of the turret stowage bin as well. A small black outline mammoth, the unit's emblem, is painted on the front of the hull to the right of the machine gun ball mount.



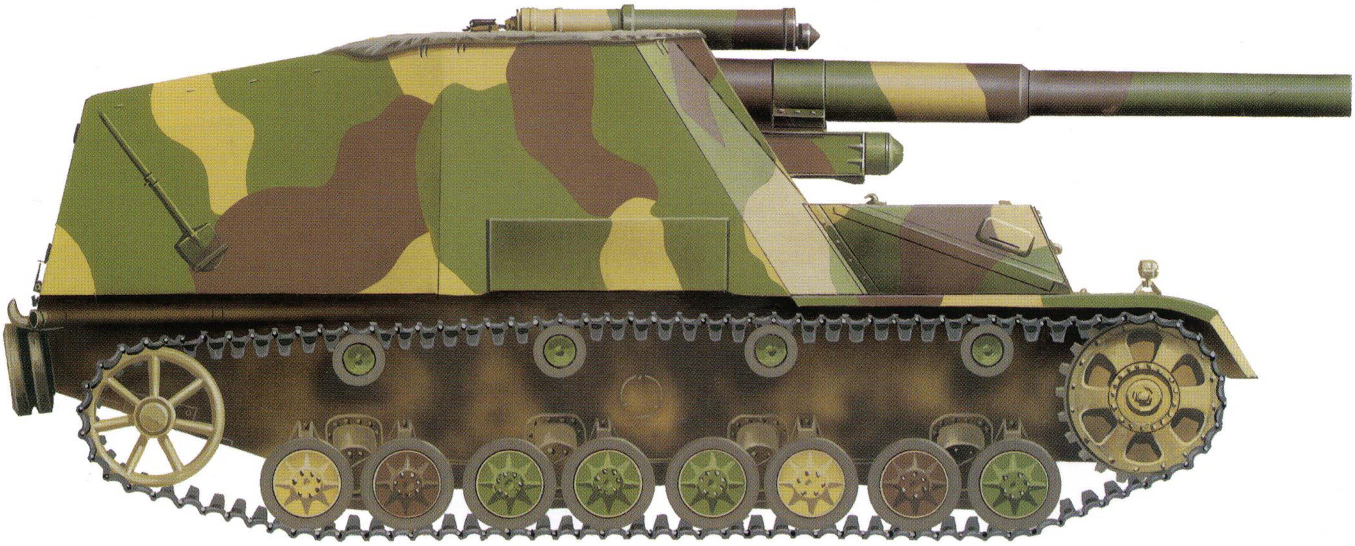
Sd.Kfz.131 'Marder II', unknown Pz.Jg.Abt., Russia, autumn 1943

This Marder II self-propelled anti-tank gun is painted in dark sand with a camouflage scheme of brown spots sprayed over the whole vehicle. It carries an unusually large national cross painted on the side of the fighting compartment with a strip of the dark sand base color between the black cross and white outline. The three digit tactical number is black with a white outline and a smaller black company number, outlined in yellow, is repeated in front of the national cross. Wire has been strung around the sides and front of the vehicle, including along the gun barrel, to attach foliage for additional camouflage.



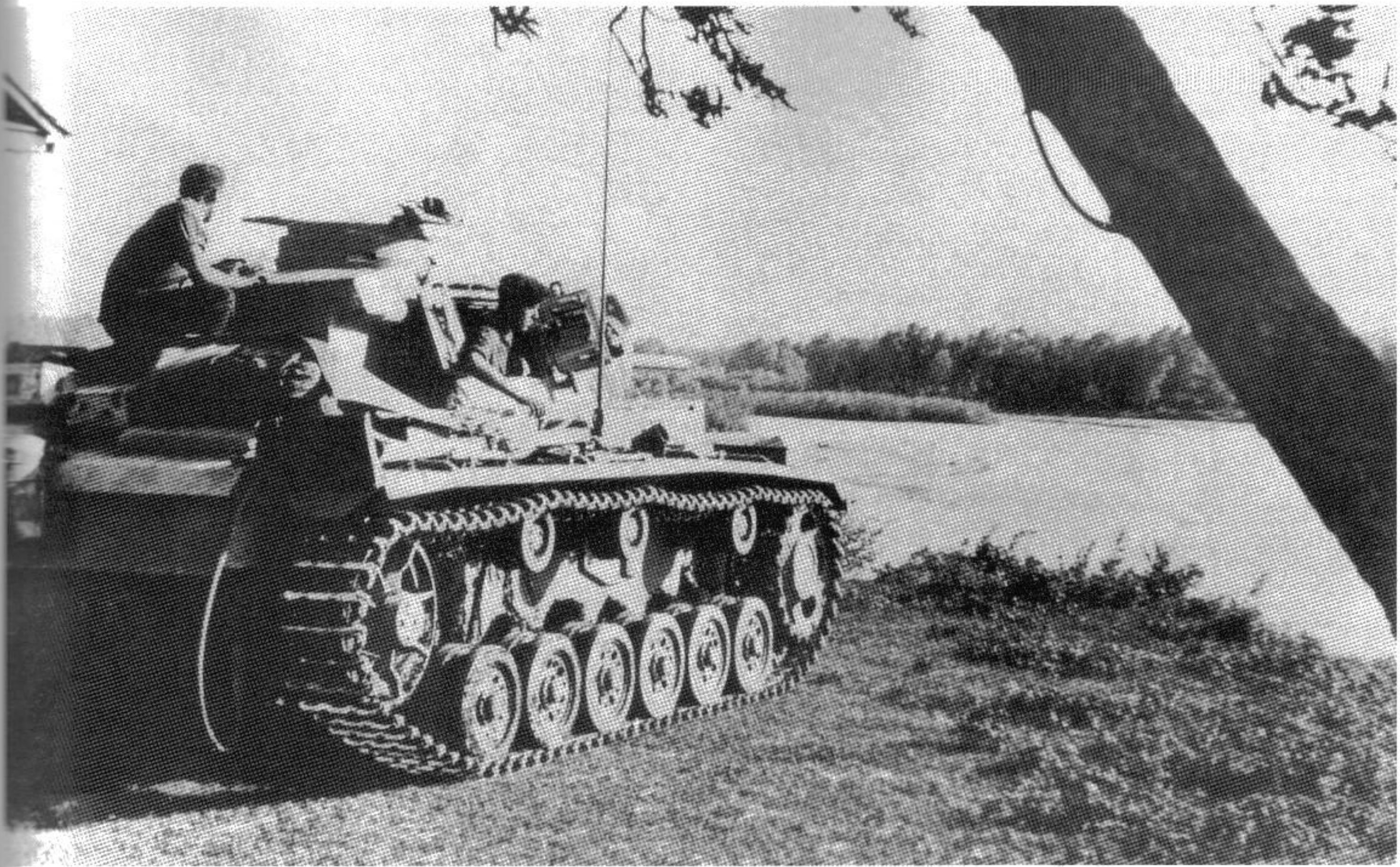
Su-76i, unknown Panzer-Division, Russia, winter 1943-44

The Soviet Army converted approximately 200 captured Pz.Kpfw.III into self-propelled anti-tank guns by adding an armored superstructure and fitting a 76.2mm gun, the same as that used in the T-34/76 tank. This one is based on the Pz.Kpfw.III Ausf.J and was recaptured by the Germans. It has been given a coat of white winter camouflage paint and marked with a large national cross on the side of the superstructure.

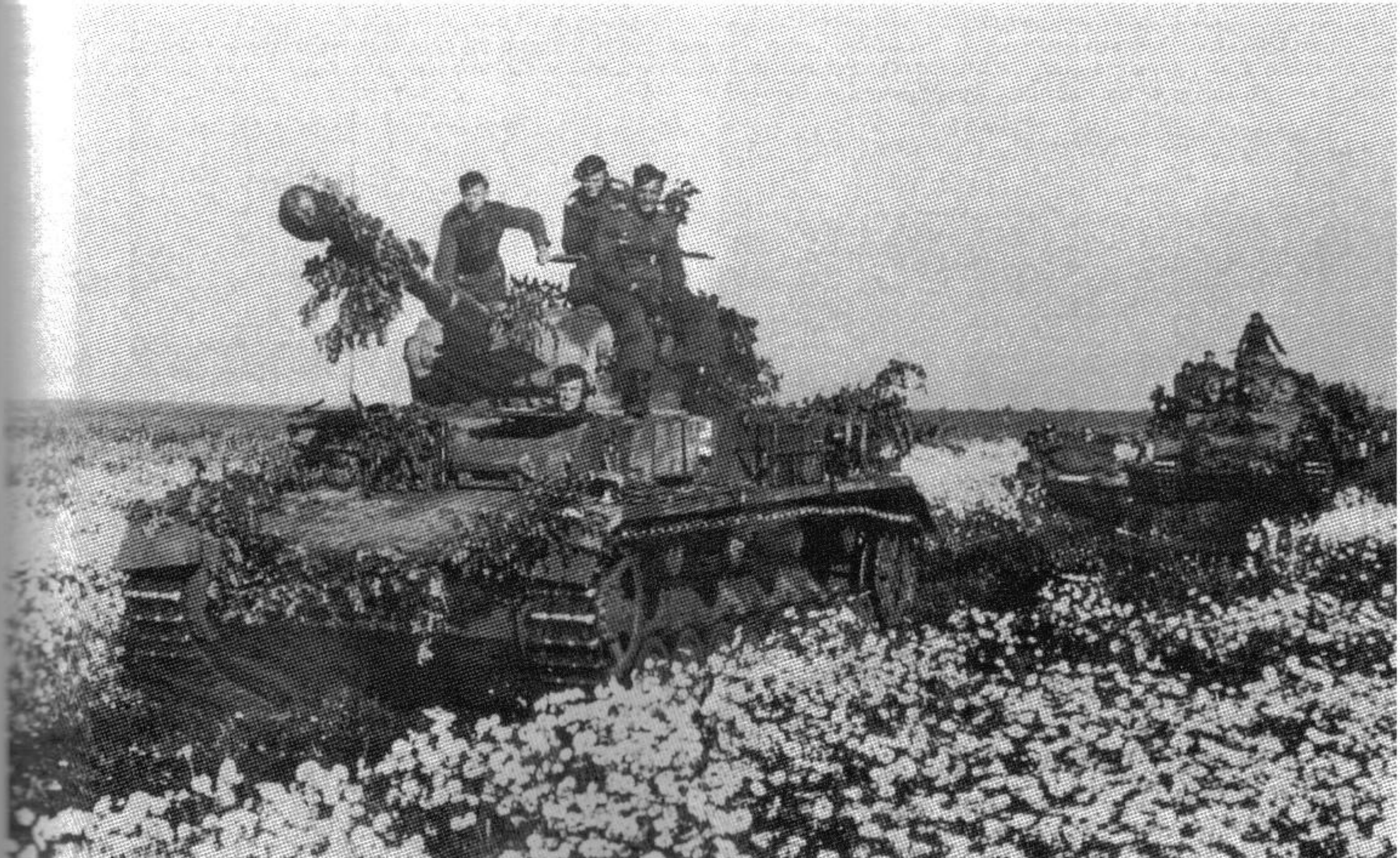


Sd.Kfz.165 'Hummel', unknown Pz.Art.Abt., Eastern Front, summer 1944

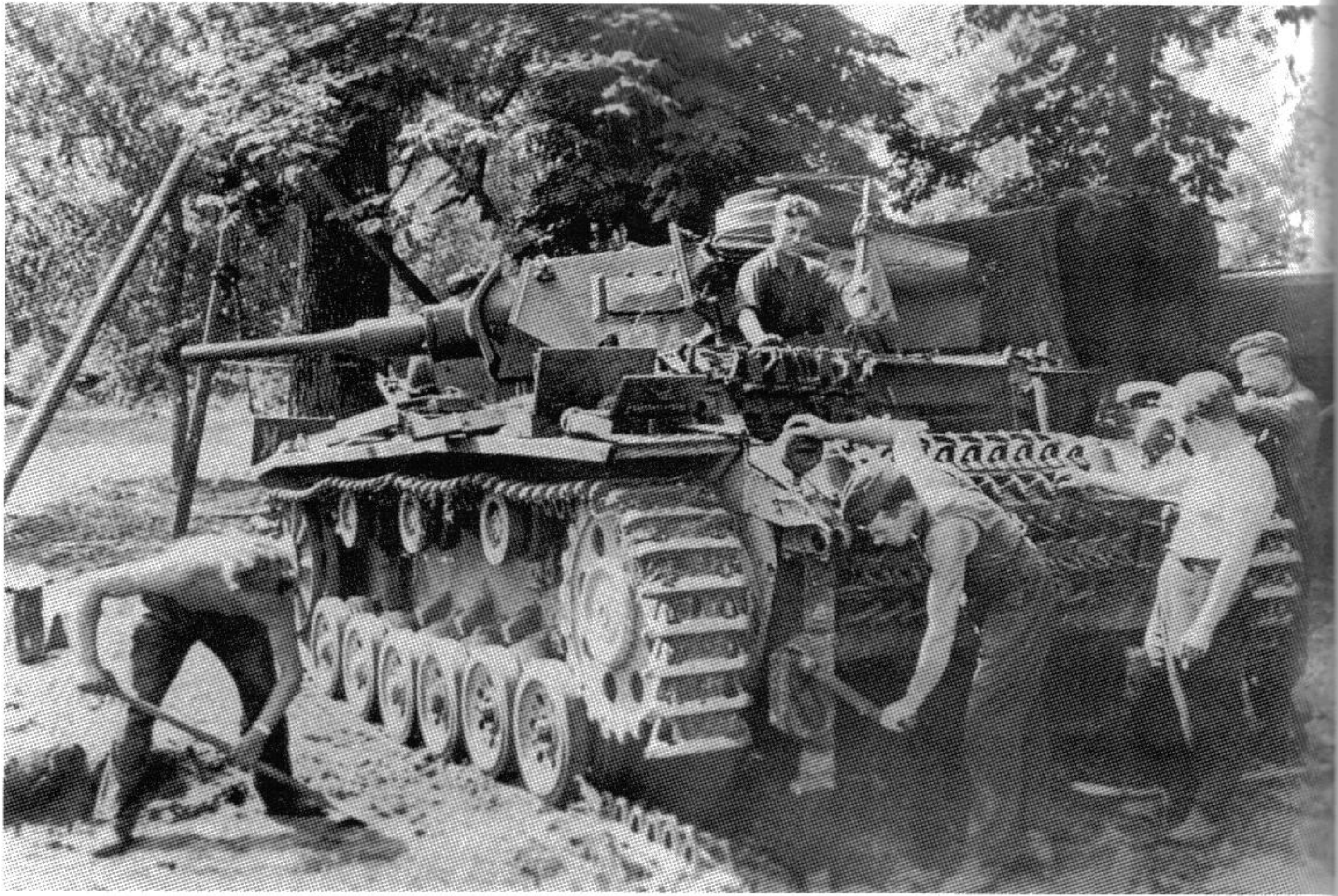
This late production Hummel is painted in a very unusual camouflage scheme consisting of large patches of brown and green joined together with no spaces between the colors. It has been fitted with armored covers over the engine air intake grilles and features the full width driver's and radio operator's compartment.



Another Pz.Kpfw.III Ausf.L of 13.Panzer-Division in the Kuban area. The vehicle appears to be in fairly new condition and the crew have stowed some of their gear and additional equipment on the engine deck.



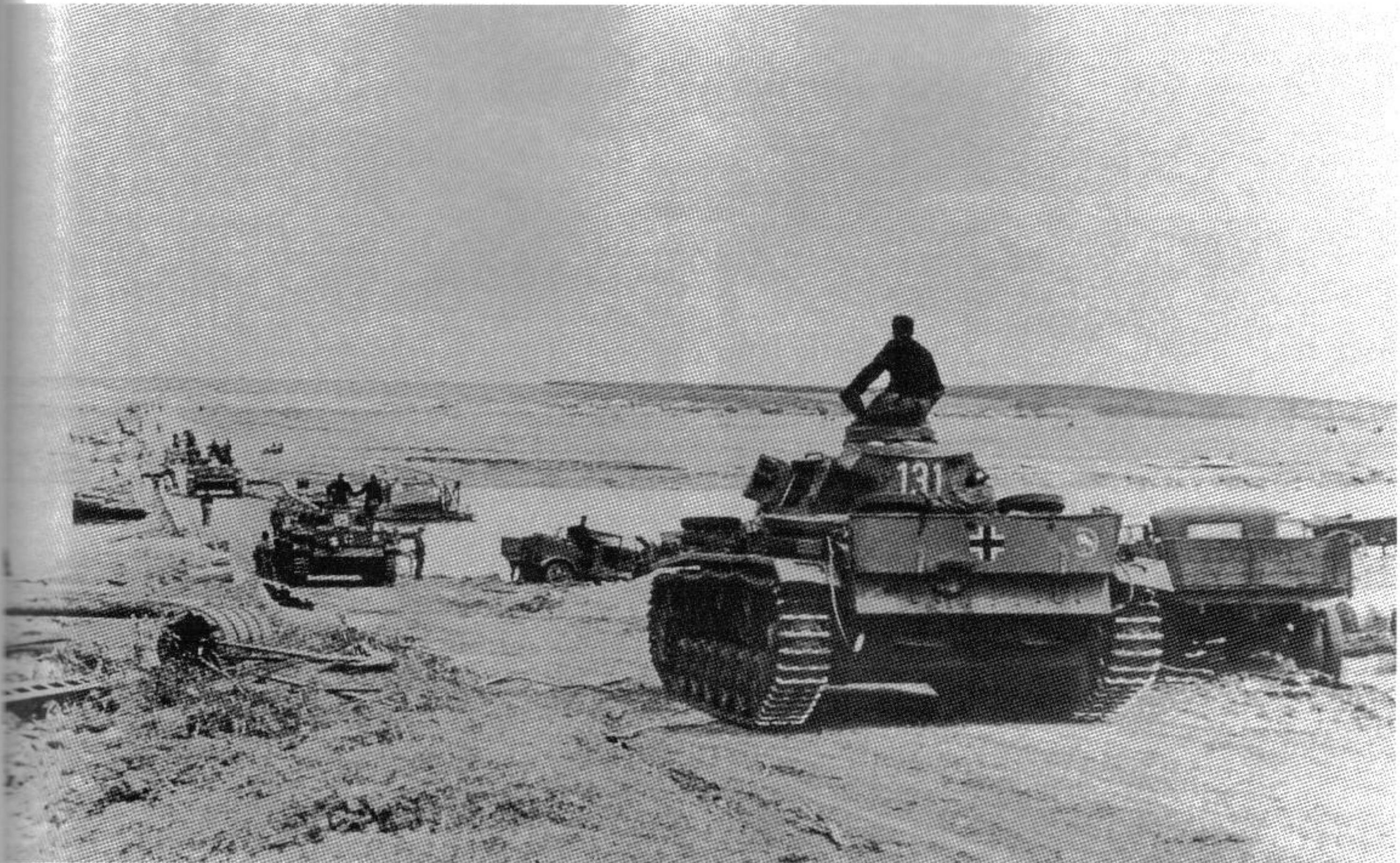
Two new Pz.Kpfw.IV Ausf.F2 of Panzer-Grenadier-Division 'Großdeutschland' march across the Russian steppes in the Don bend, August, 1942. They are painted in dark gray with sand colored spots sprayed on randomly and have foliage added to break up the shape of the vehicle. Armed with the 7.5cm KwK40 L/43, the Pz.Kpfw.IV Ausf.F2 finally gave the German Army superiority over the Russian KV-1 and T-34.



The crew of this Pz.Kpfw.III Ausf.F perform track maintenance during a lull in the fighting. It has been refitted with a 5cm KwK L/42, in place of its original 3.7cm KwK L/46.5 gun, along with a later cupola. The tactical number '334' appears on the sides of the turret in yellow along with a white letter 'K' on the rear mudguard. During July and August, at the height of the summer offensive in the central and southern part of the Eastern Front, the Germans lost 398 tanks of this type. During the same time, 462 replacements were produced.

A column of Pz.Kpfw.III advancing through the foothills of the Caucasus Mountains in August, 1942. The armored units of H.Gr.Sud., despite their weakness, played a major role in the campaign to capture the Russian oilfields, striking quickly into the region against light defenses. In early November, 1942, 13.Panzer-Division advanced almost to Ordzhonikidze before being turned back by a Soviet counter-attack.

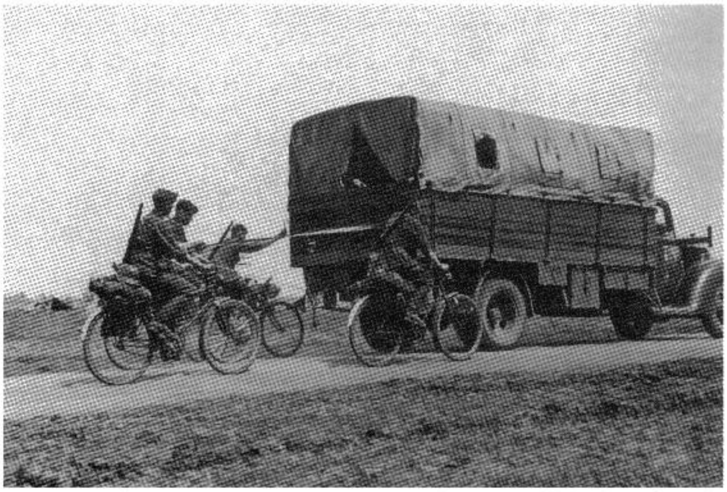
A group of Soviet prisoners sit waiting in a field under guard of two Pz.Kpfw.II Ausf.F. They probably felt lucky to have been taken prisoner, as often the fast moving Panzers had neither the time nor troops to spare for guard duty, and many were killed. They probably did not feel that way for long though. The two tanks have the tactical numbers '377' and '378' painted in white on the side of their turrets.



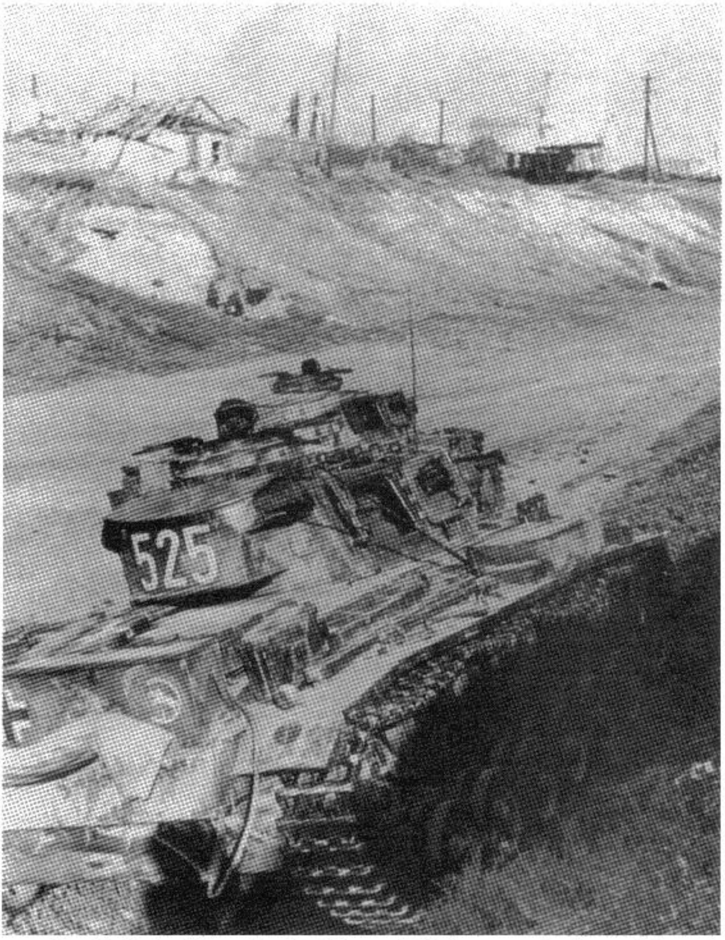
Pz.Kpfw.III Ausf.J tanks of 24.Panzer-Division crossing a German engineer's bridge over the Don River during the drive to Stalingrad in August, 1942. The stowage box fixed to the rear of these vehicles was typical for the Pz.Kpfw.III of the Division. A white outline black national cross is painted on the back of the box along with the emblem of 24.Panzer-Division, a rider on horseback jumping through a half circle, painted in yellow. This emblem was originally used by 1.Kavallerie-Division which had been reorganized as 24.Panzer-Division on November 28, 1941. The vehicles are finished in the standard dark gray paint.

Two Sd.Kfz.8 half-track prime movers attempt to retrieve an 8.8cm FlaK18 anti-aircraft gun that was on a crude log bridge that has collapsed from the weight. The momentum of the German advance taxed the engineer units to their limit as the Army spread out over a much wider front with longer lines of communication and supply than in the previous year. The photo was taken near Stalingrad in August, 1942.

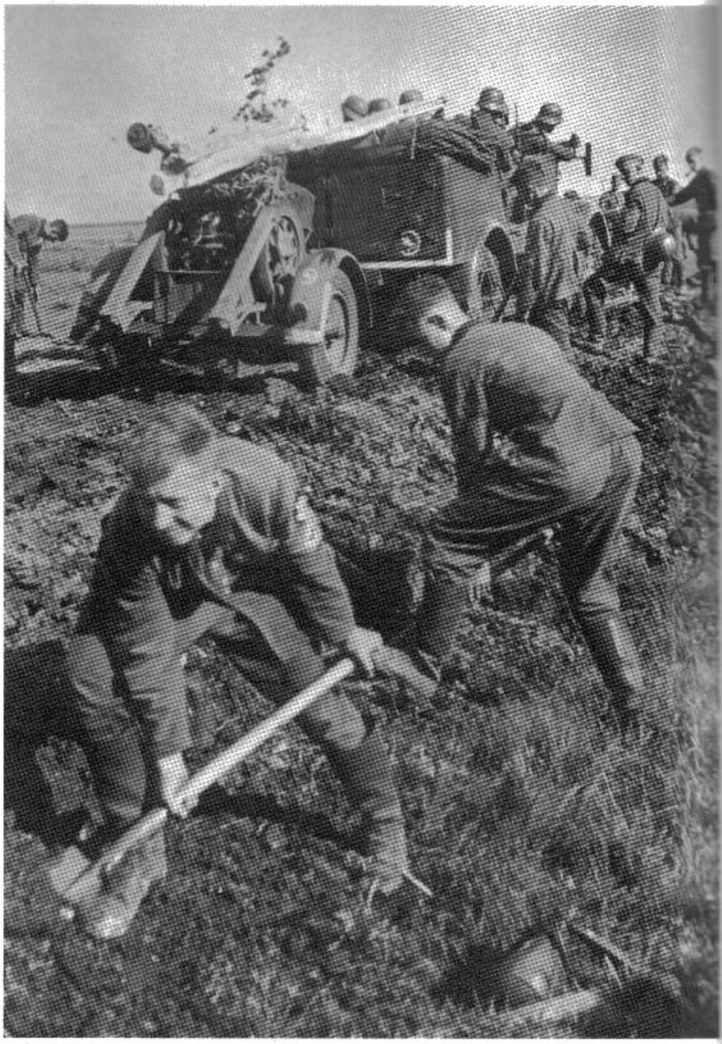
A Pz.Bef.Wg.III Ausf.H and a Pz.Kpfw.II Ausf.A-C along with several other tanks and half-tracks roll across the open steppe near Stalingrad, August, 1942. The Befehlspanzer is one of the later versions fitted with the dummy 5cm KwK L/42 main gun.



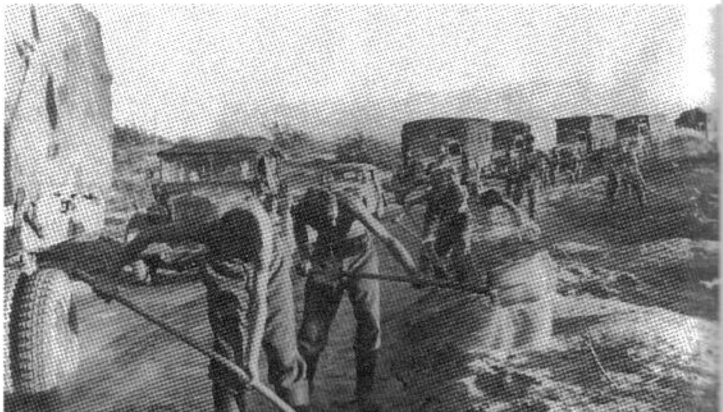
Luftwaffe troops on bicycles are towed along by a Ford V3000S truck near Stalingrad in late August 1942. The truck belongs to a RAD (Reichsarbeitsdienst) unit and carries this designation on its license plate, 'RAD 51187', and again, on the side of the door.



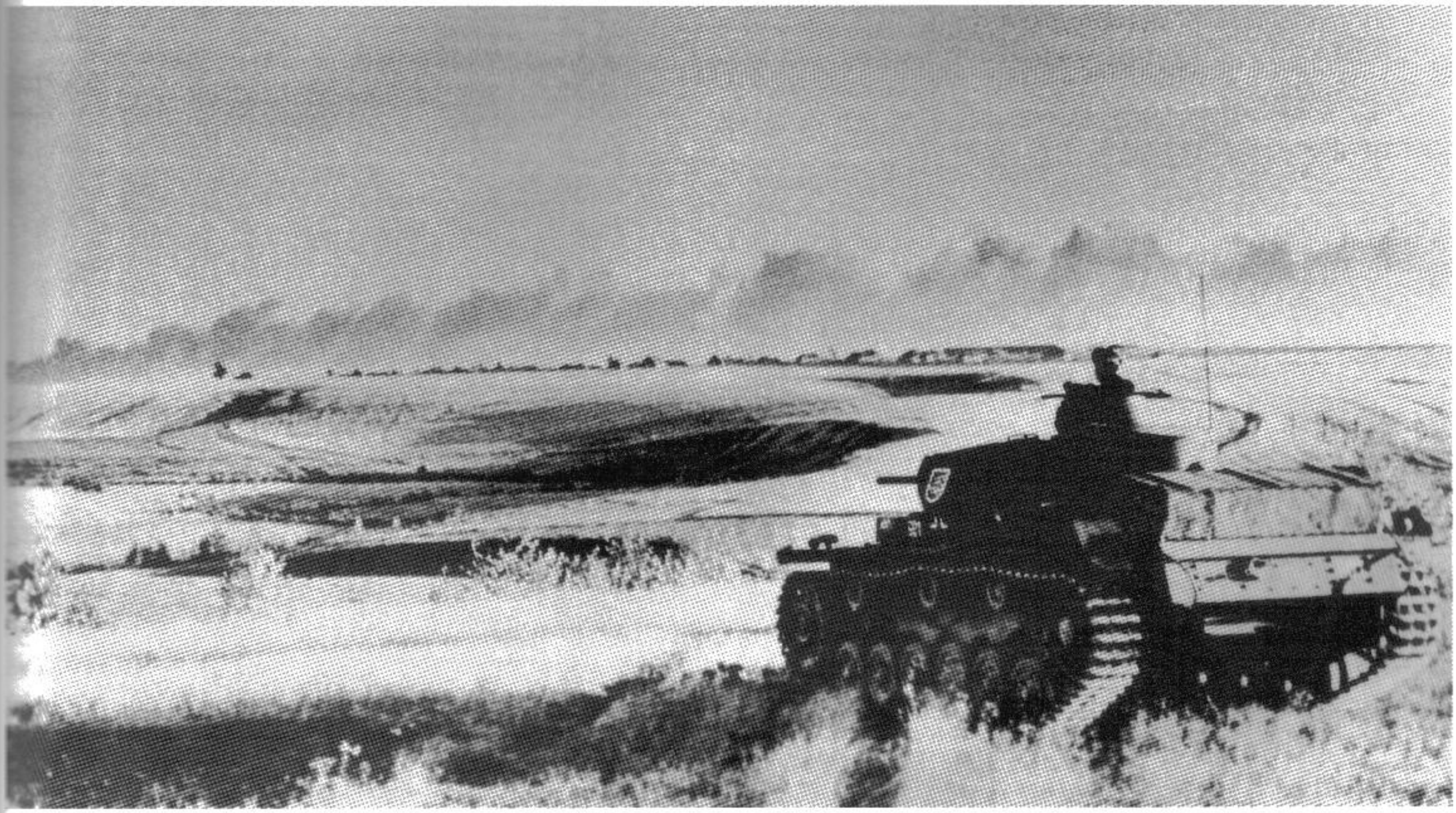
Two Pz.Kpfw.III Ausf.J of 24.Panzer-Division enter Stalingrad through the southern, older part of the city in August 1942. Both vehicles are from the same company and display their three digit tactical numbers in red with a white outline on the rear of the turret storage bin and again, in a smaller size, on the side of the turret. The one closest to the camera is '525' while the one beyond is '524'. The jumping horse emblem is clearly visible on the rear of the special storage bin attached to the engine deck that was peculiar to this division, along with a white outlined black national cross. They are finished in their original dark gray color.



RAD men repair a road for vehicles of 24.Panzer-Division in August 1942. The vehicle is a Mercedes-Benz L1500A and is towing a small trailer carrying an 8.8cm Raketenwerfer 43, or 'Püppchen' as it was known. The stylized emblem of 24.Panzer-Division, a mounted rider jumping through a partial circle, can be seen painted on the rear of the car as well as on the mudguard of the trailer. It is easy to see how inefficient the German Army was in this regard when compared to a fully mechanized U.S. Army, dependent on machines instead of muscle power.

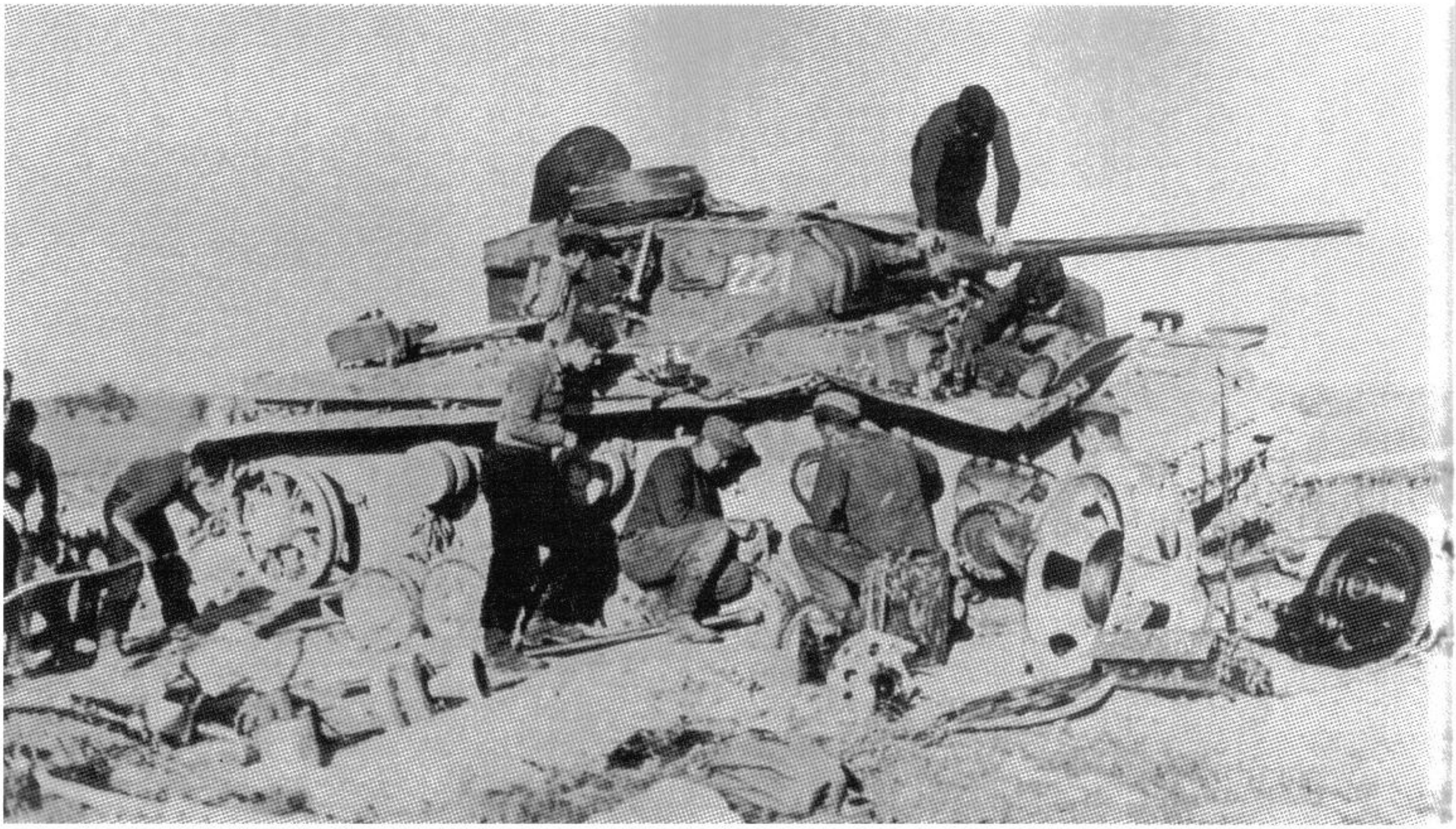


Another view of the RAD at work near Stalingrad in September 1942. Again, men with spades are used where specialized construction equipment would have freed them for other duties and completed the work easier and faster. It is not surprising that the German Army encountered the difficulties they did. Behind the Horch Kfz.15 heavy cross country car, a small staff car can be seen along with several Ford 917T or 977T 3-ton trucks.



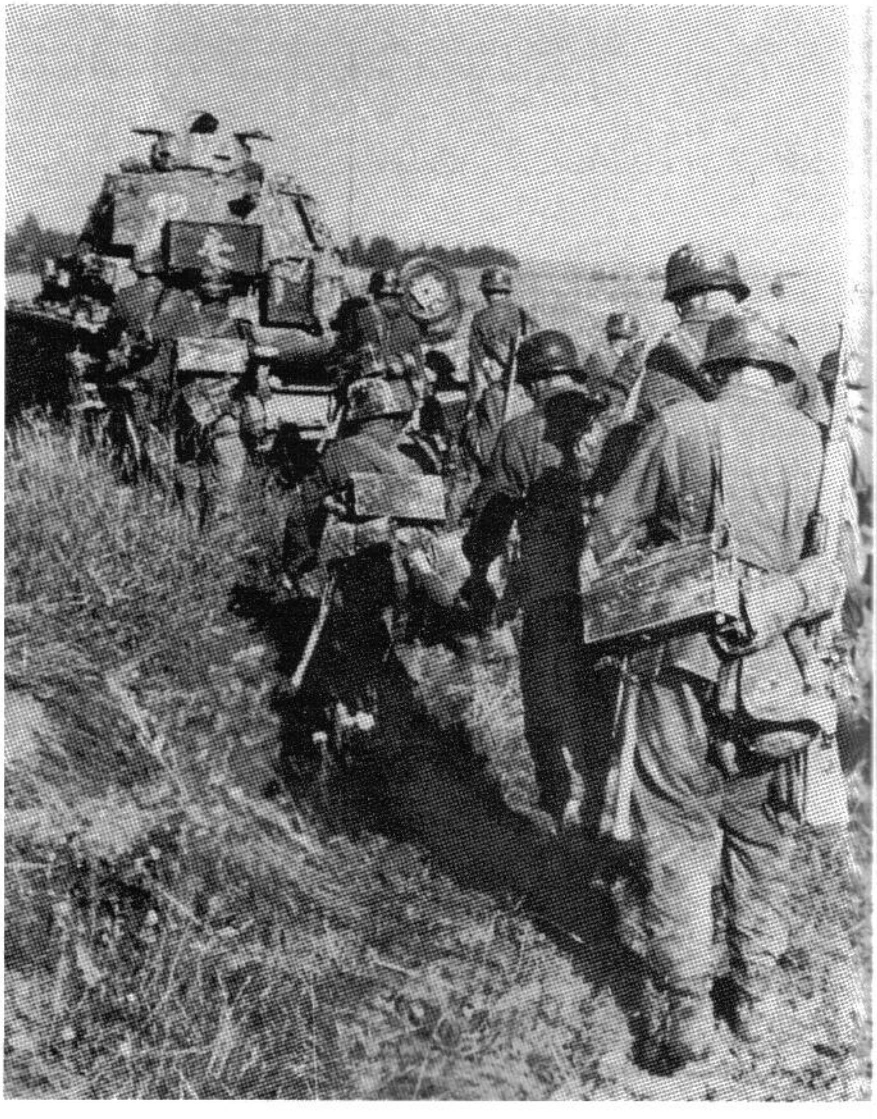
One of the units held in reserve for Operation 'Blue', was 2.Panzer-Division. The colorful winged dragon markings displayed on the turret of this Pz.Kpfw.III Ausf.J appear to have been limited to 6.Kompanie vehicles. Headquarters vehicles, '601' shown here and '602', had the emblem painted in a shield, while 2.Zug (platoon) used a diamond and 3.Zug used a triangle. The other two platoons used a circle and a square but it is not known for sure which each one used. Other markings included a yellow Panzer rhomboid painted on the side hull vision flaps and rear plate with a small '6' beside it along with a small, white tactical number and white outlined black national cross. The tactical emblem for 2.Panzer-Division, an inverted 'Y' with a short, single vertical bar to its right was also painted in yellow on both hull sides and rear plate.

A column of, what appears to be, new Pz.Kpfw.III Ausf.J somewhere in southern Russia in the summer of 1942. Replacements of Pz.Kpfw.III barely exceeded losses in the last half of 1942, leaving many Panzer-Divisions in a weakened condition. When surrounded by the Soviet Army at Stalingrad in November 1942, 6.Armee reported a total of 182 operational Panzers among the 3 Panzer and 2 motorized Infanterie-Divisions under its command plus a few StuG.III assault guns.

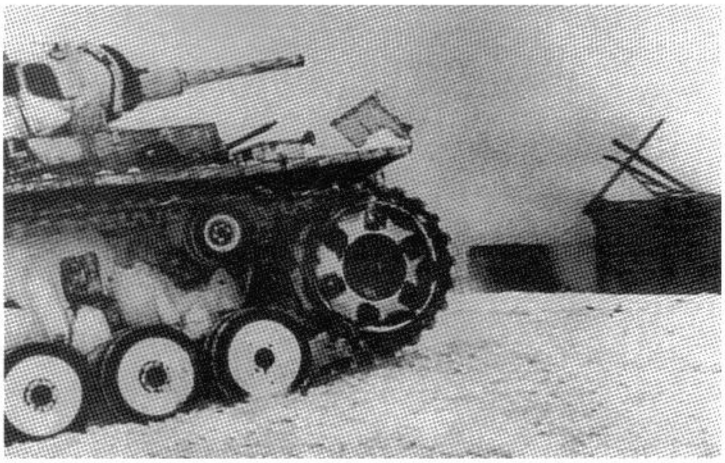


A Pz.Kpfw.III Ausf.J of 1.Panzer-Division photographed during repairs after running over a mine in August, 1942. Markings include a white tactical number '221' which has been recently painted over an older number, possibly '224'. The tactical sign for 1.Panzer-Division, an inverted 'Y', can be seen on the side of the hull near the front as well as a white outlined black national cross farther back. The effects of mud and dust on the dark gray paint are evident here with only the upper surfaces showing the original paint.

Generalmajor Walter Kruger, commander of 1.Panzer-Division, confers with his staff during August 1942. Part of Generaloberst Model's 9.Armee, 1.Panzer-Division led attacks in the central sector of the Eastern Front that resulted in severe losses after a month of heavy fighting. As most of the replacement tanks were being allocated to the units of Heeresgruppe Süd for the coming advance into the Caucasus, they had begun the battle with a total of only 45 combat ready tanks.

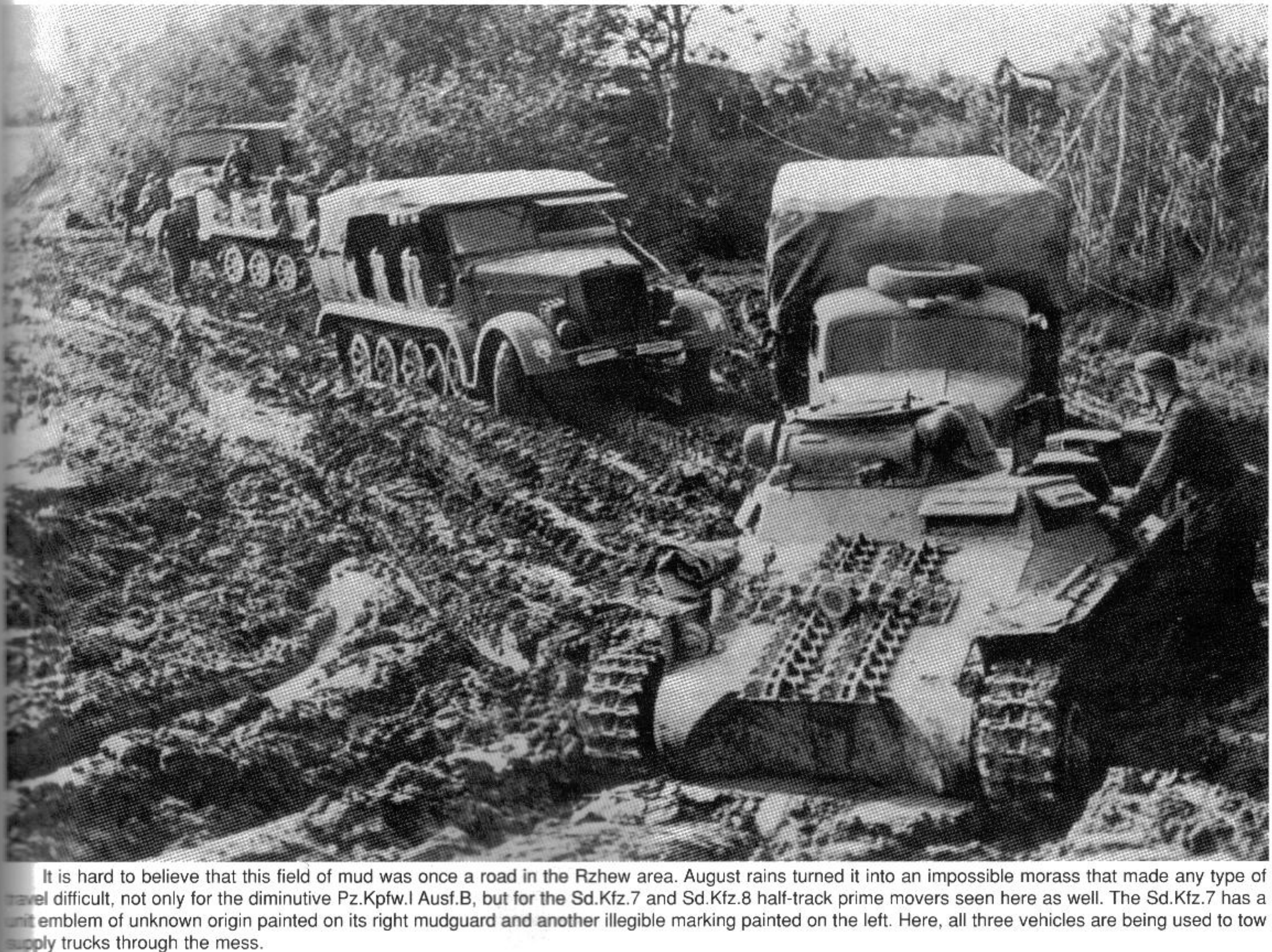


German infantry trudge along behind a Pz.Kpfw.IV Ausf.F2 from 11.Panzer-Division in the central sector of the Eastern Front in early September, 1942. The Division took part in the attack on Voronezh in July, 1942 with H.Gr.Süd. It was later transferred to H.Gr.Mitte, where it was put into reserve in November, 1942. Their famous 'ghost' emblem can be clearly seen painted on the box on the engine deck.

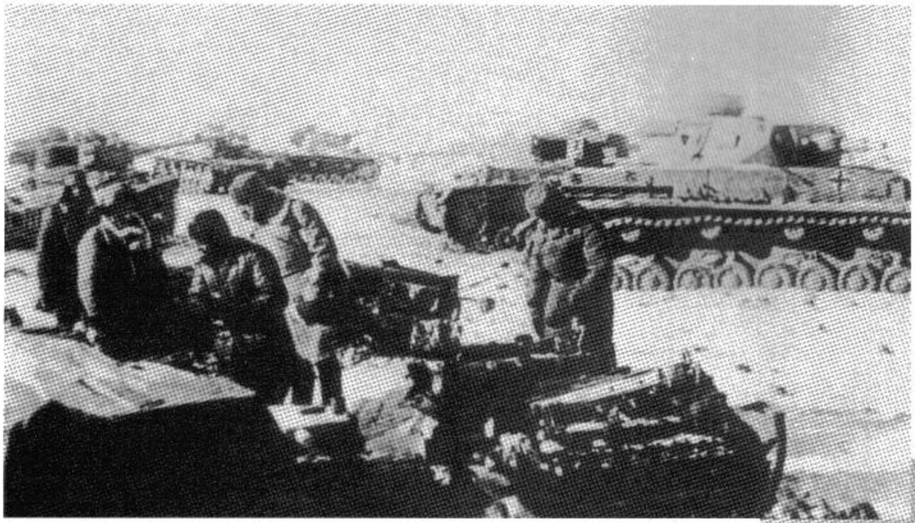


A white camouflaged Pz.Kpfw.III Ausf.J charges into a burning Russian village during a winter battle. The white paint was applied only to the upper surfaces of the tank while the lower hull and running gear are covered with accumulated snow.

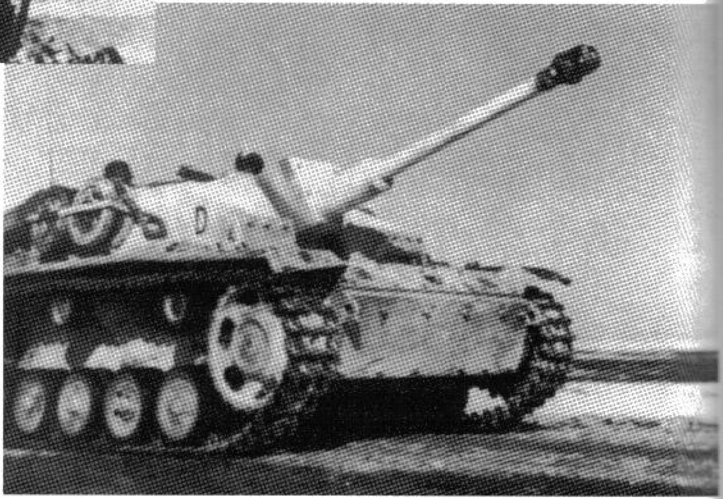
A wounded crewman is helped from his Pz.Kpfw.III Ausf.J which has been damaged by a mine during the fighting around Vyazma in September, 1942. It was one of 223 tanks available in 4., 17., 18. and 19.Panzer-Divisions from 2.Panzer-Armee and 4.Armee that took part in Operation 'Wirbelwind' that failed completely.



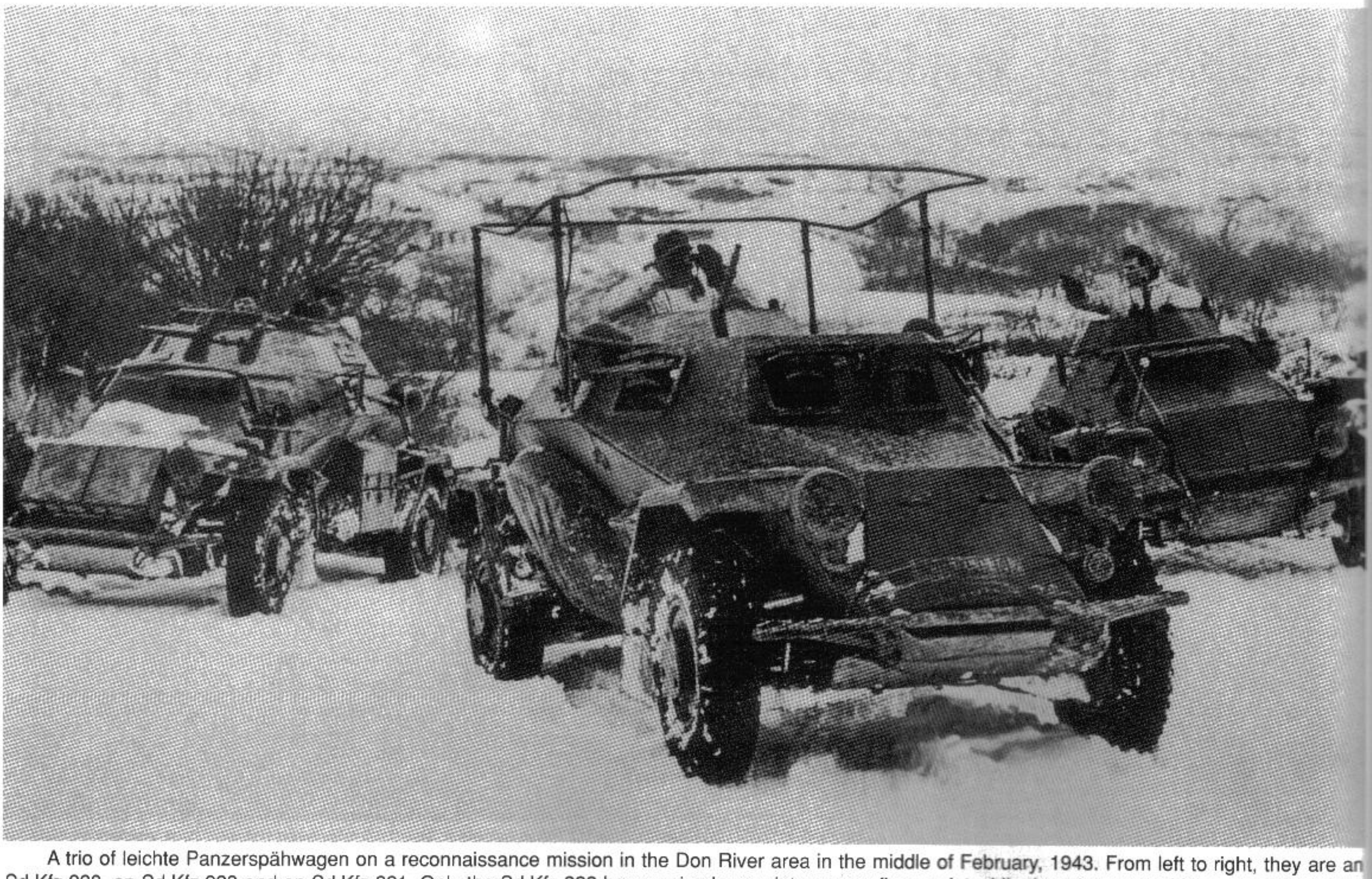
It is hard to believe that this field of mud was once a road in the Rzhew area. August rains turned it into an impossible morass that made any type of travel difficult, not only for the diminutive Pz.Kpfw.I Ausf.B, but for the Sd.Kfz.7 and Sd.Kfz.8 half-track prime movers seen here as well. The Sd.Kfz.7 has a unit emblem of unknown origin painted on its right mudguard and another illegible marking painted on the left. Here, all three vehicles are being used to tow supply trucks through the mess.



One of 6.Armees Panzer graveyards near Stalingrad, where damaged, broken down and worn out tanks were stored for repairs and overhauls. In the foreground are several tank engines while in the background, four Pz.Kpfw.III Ausf.J -L and a Pz.Kpfw.IV Ausf.F1 sit derelict. The Soviet Army launched their counter-offensive, Operation 'Uranus', on November 19, 1942 to the north and south of the city against Germany's weaker allies. The encirclement of Stalingrad was complete by November 23 and 6.Armee surrendered on January 30, 1943.

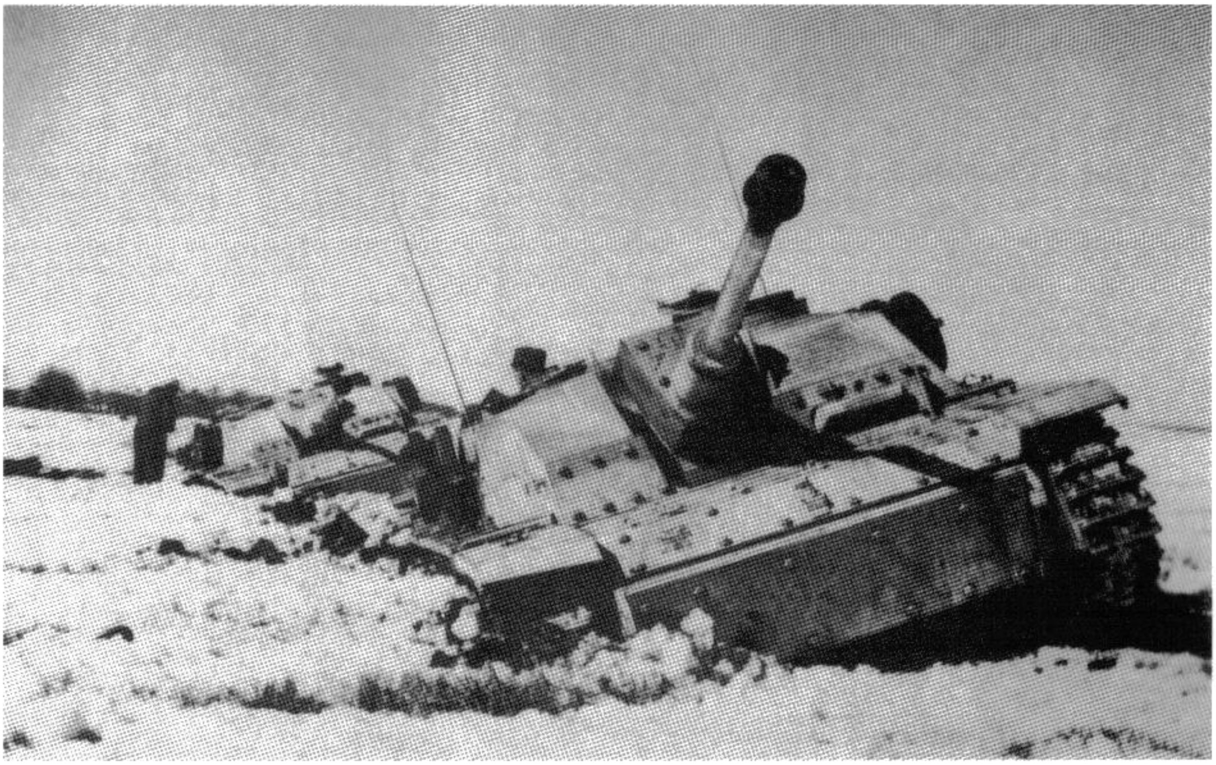


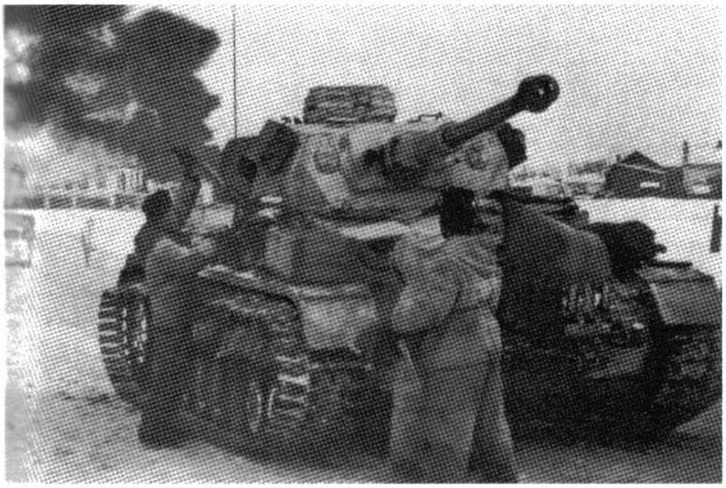
One of the 120 initial production StuG.III Ausf.G built in December 1942, featuring the short panniers on each side and fume extraction ventilator still mounted on the roof. It has not been fitted with the machine gun shield which was introduced in late December. Beginning with Ausf.F production, additional 30mm armor plates were bolted to 50mm plates on the front of the hull. Single 80mm front plates were introduced in February, 1943, though some manufacturers continued to provide the 30mm bolted armor until October that year.



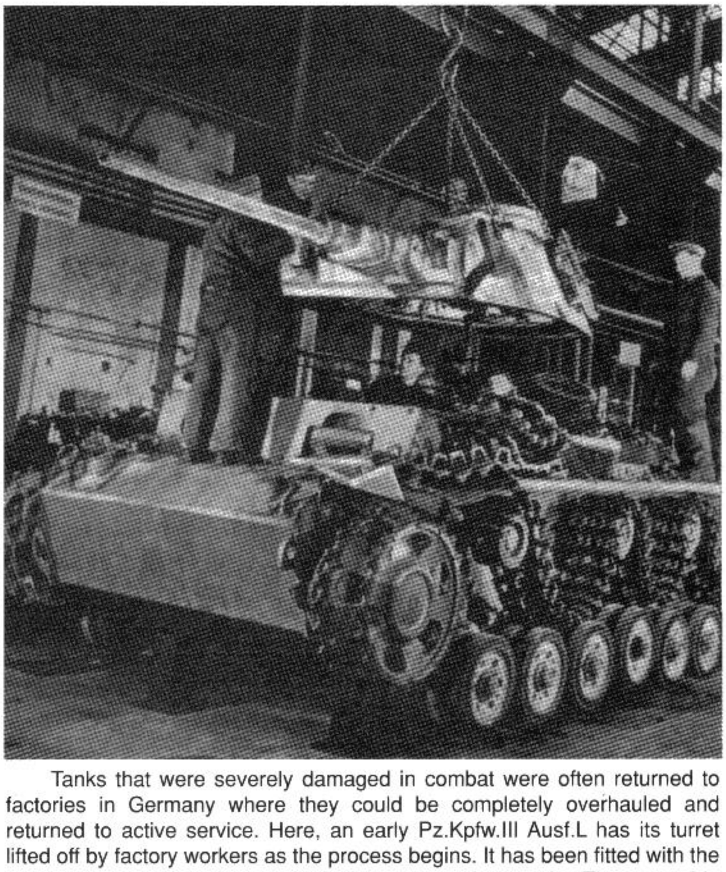
A trio of leichte Panzerspähwagen on a reconnaissance mission in the Don River area in the middle of February, 1943. From left to right, they are an Sd.Kfz.222, an Sd.Kfz.223 and an Sd.Kfz.221. Only the Sd.Kfz.222 has received any winter camouflage paint while the other two vehicles are still finished in their standard dark gray paint scheme.

Two StuG.III Ausf.G of a later production batch bogged down in soft ground in early 1943. Both have received a coat of winter whitewash which is already starting to show the sand yellow base color. The tactical sign for a Sturmgeschütz unit, a rhomboid with an arrow pointing up from the top, are stenciled on the left side of the front hull plate along with an illegible unit emblem on the right side.

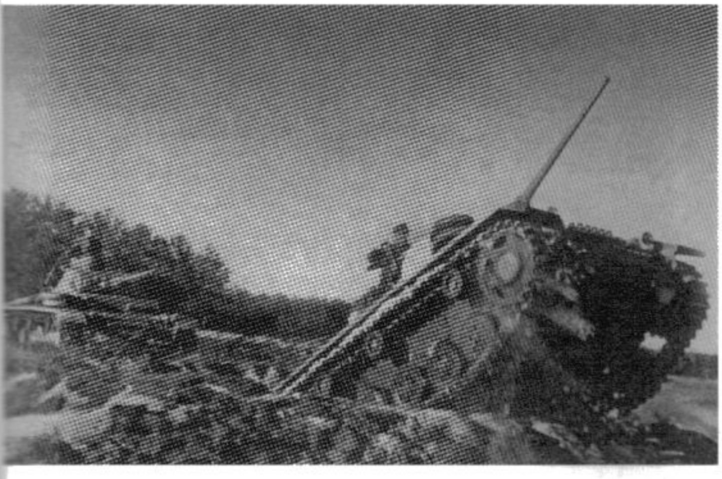




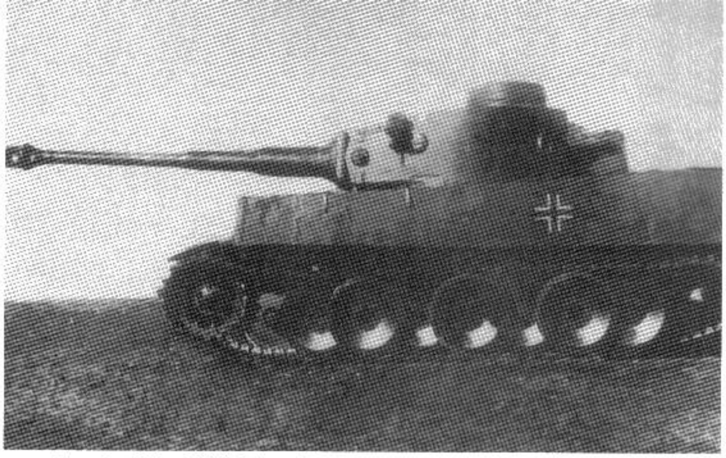
An early Pz.Kpfw.IV Ausf.G from one of the SS-Panzer-Grenadier-Divisions employed during the German counteroffensive to retake Kharkov in February and March, 1943, when General von Mansteins counter-attack led to the recapture of the city. A great German victory, it saved the whole southern sector of the Eastern Front. The tank is fitted with 'Winterketten', a special wide track that reduced the ground pressure and provided for greater mobility on soft ground. It is finished with a dirty coat of white winter camouflage paint.



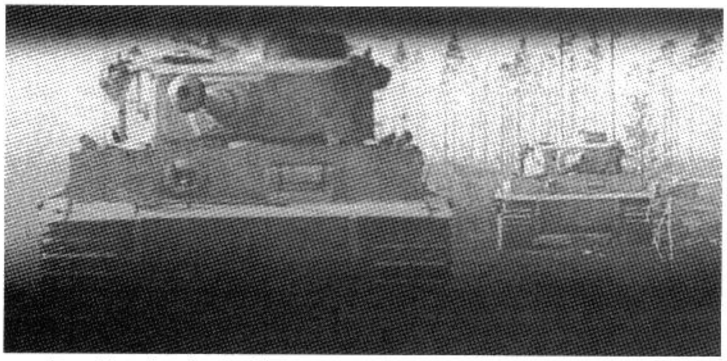
Tanks that were severely damaged in combat were often returned to factories in Germany where they could be completely overhauled and returned to active service. Here, an early Pz.Kpfw.III Ausf.L has its turret lifted off by factory workers as the process begins. It has been fitted with the 20mm spaced armor plate on the hull, but not on the mantlet. The turret side visor and hull escape hatch have been deleted though it still retains the loader's vision flap in the mantlet. The remains of the winter camouflage paint scheme can still be seen along with the divisional emblem of 9.Panzer-Division, a 'Y' with two small vertical bars beside it, just to the right of the driver's visor.



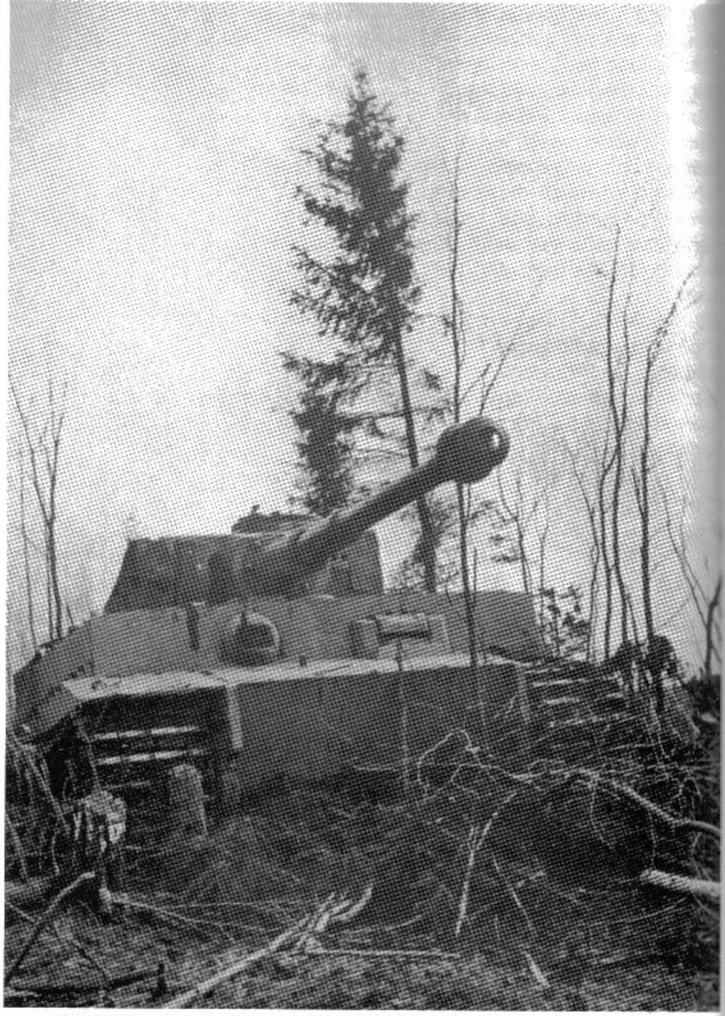
Two Pz.Kpfw.III Ausf.J that have been repaired are put through their paces on the factory testing ground before being shipped back to the frontline units. During the last two months of 1942, over 100 Pz.Kpfw.III were repaired at factories in Germany and put back into service.



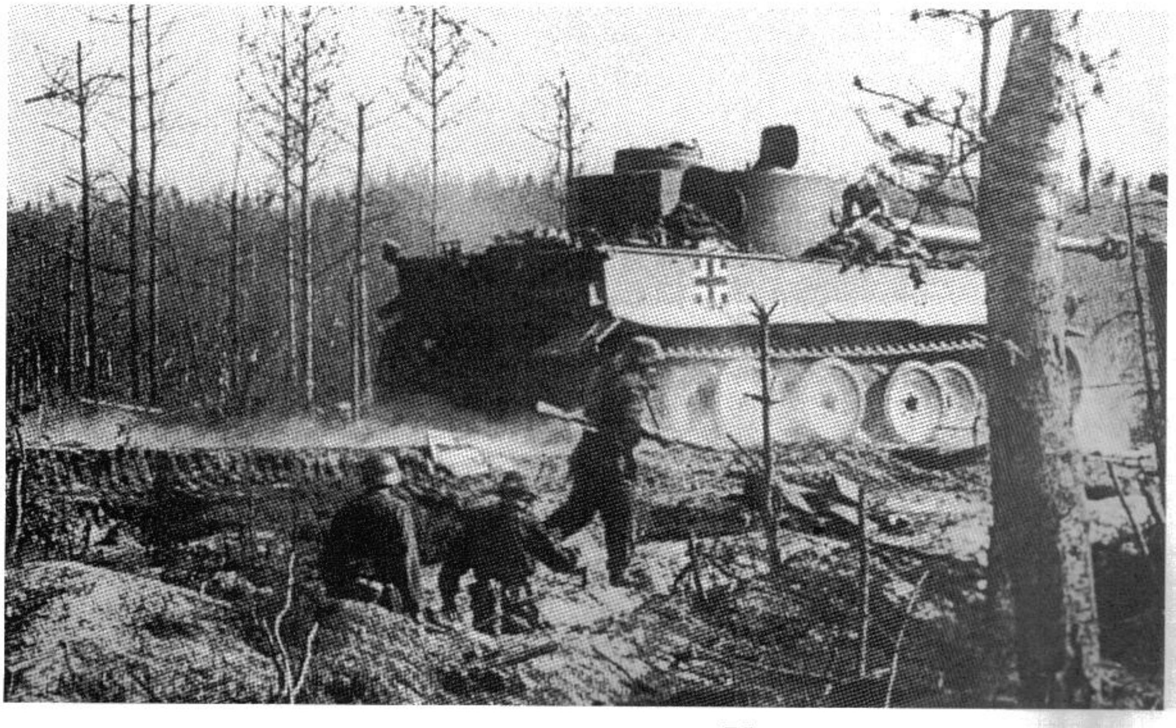
The Pz.Kpfw.VI(H) Tiger I made its debut with s.Pz.Abt.502 in the Leningrad area on September 16, 1942. Number '121' was one of six Tiger Is captured by the Russians after a battle near Schlusselburg on January 18, 1943 and taken to their testing facility at Kubinka. One of the first nine Tigers issued, it was not fitted with side mudguards. The stowage bin from a Pz.Kpfw.III has been fitted to the rear of the turret. Although not clear in this photo, it is fitted with the early pattern right and left battle tracks, which the Soviets have removed at some time and reinstalled on the tank on the opposite side. These vehicles were finished in dark gray paint.



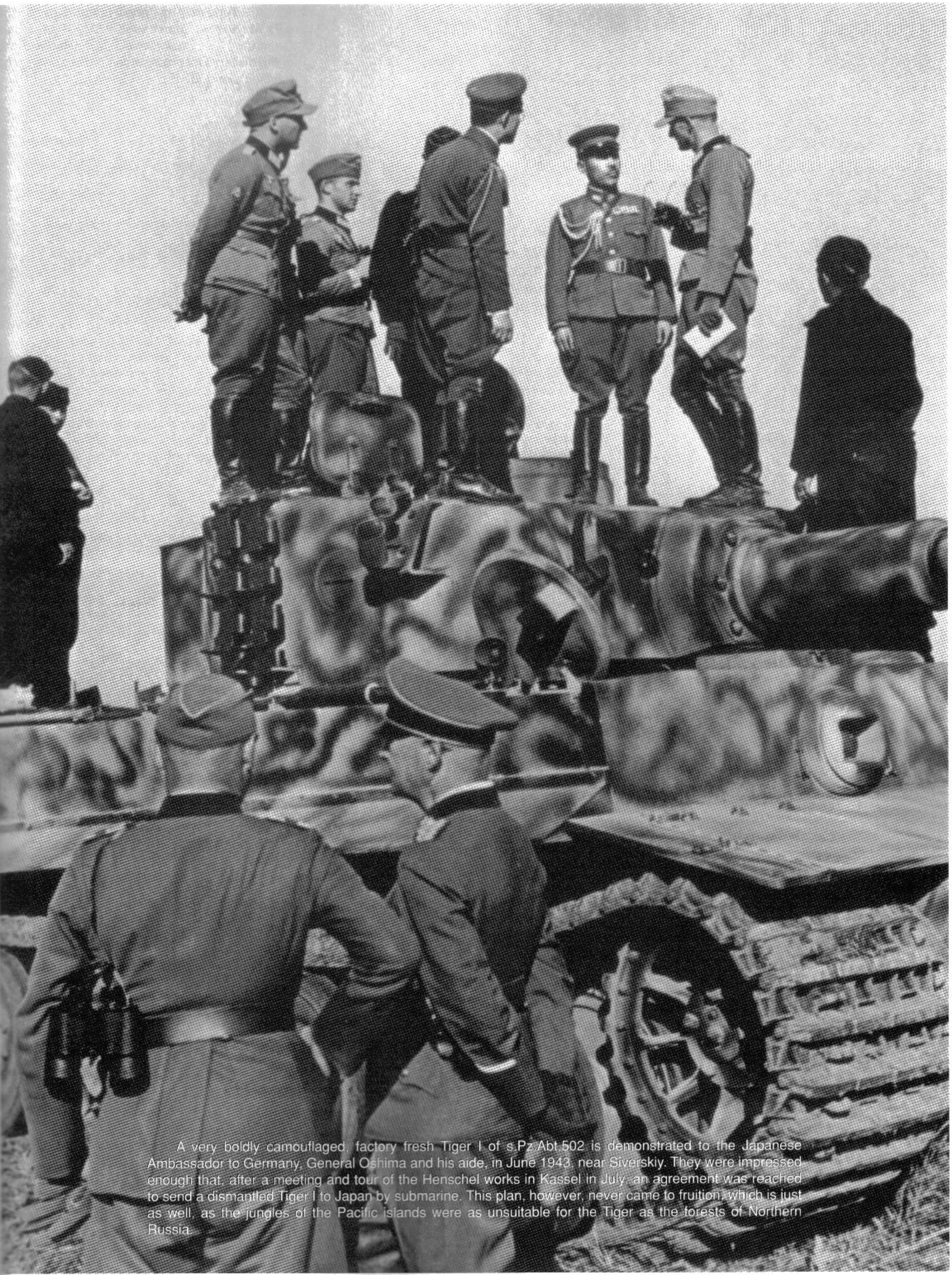
Two Tiger Is of s.Pz.Abt.502 seen through the visor of another tank. It was originally planned to organize heavy companies of twenty Tigers in each Panzer-Division. This concept was later changed creating the independent Tiger battalion that was to be commanded at the corps level. The exceptions at the time were Großdeutschland and SS-Panzer-Regiments 1, 2 and 3. In part due to expense and production difficulties, even these were later reorganized into independent battalions.



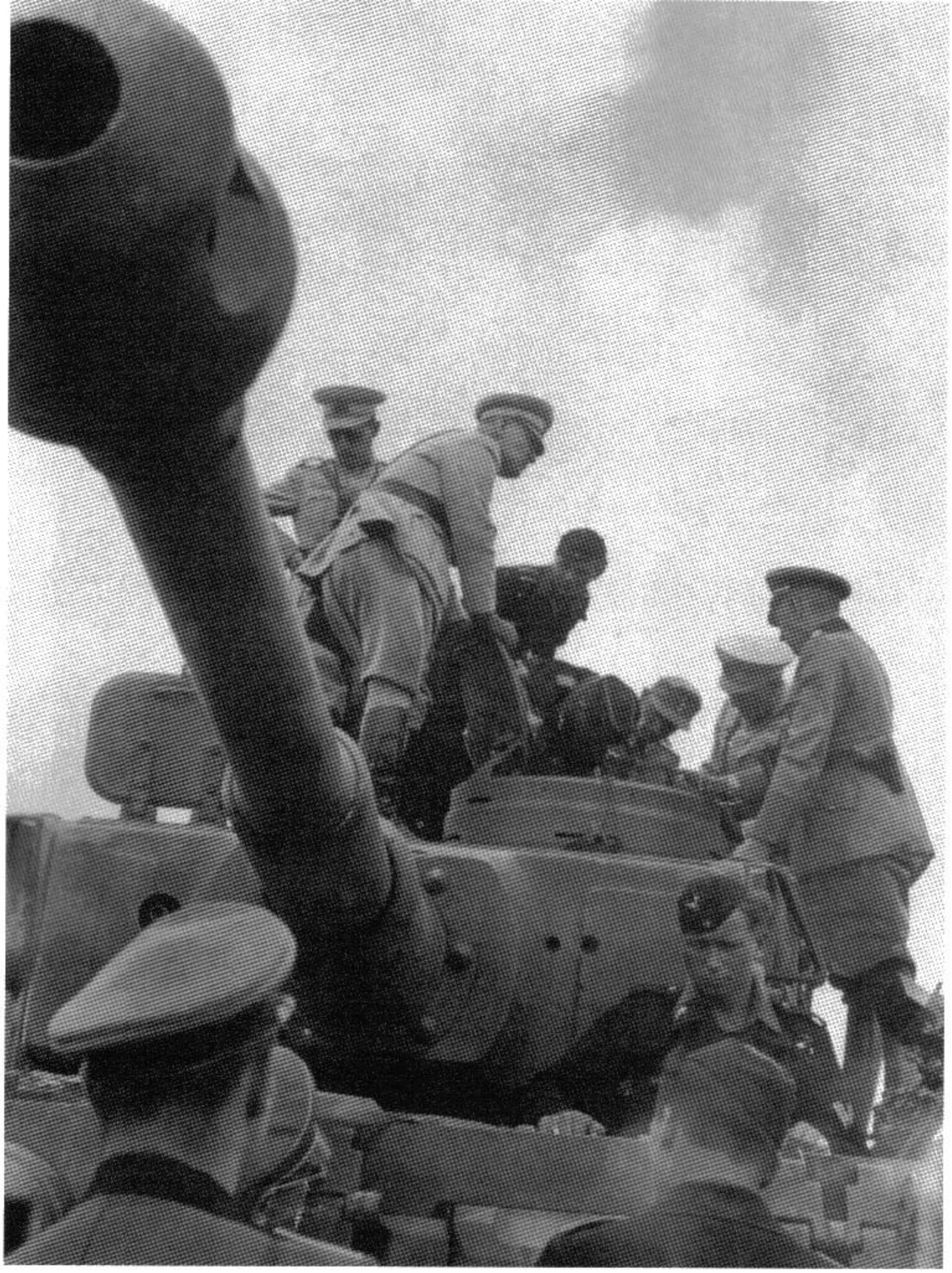
The Tigers of s.Pz.Abt.502 fought their first battles in the forests around Leningrad during the fall of 1942, in terrain that was unsuitable for tank combat tactics. Despite the very difficult conditions, the crews of s.Pz.Abt.502 fought well and were responsible for the destruction of over 125 Soviet tanks by the summer of 1943. This photo was taken that summer and shows one of their Tigers ploughing through the soft ground typical of that region. This tank was fitted with the turret mounted smoke candle dischargers which the censor has removed along with the rear part of the turret.



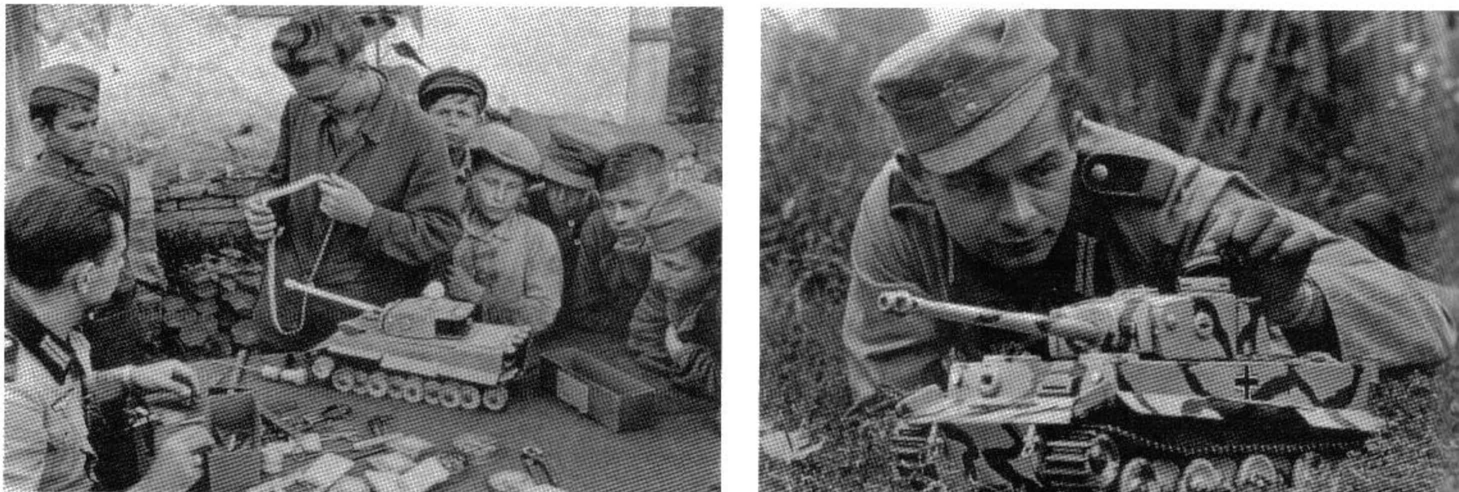
Tigers of s.Pz.Abt.502 supported by infantry advances through a forest in the summer of 1943. The organization of s.Pz.Abt.502 at this time consisted of 14 Tigers in each company plus 3 Tigers in the headquarters platoon. This Tiger is from 2./502 and is painted dark sand with a light camouflage pattern of green patches and a black three digit tactical number painted on the lower front sides of the turret and repeated on the rear of the turret stowage bin. The unusual national crosses, particular to this company, were painted on a large black square located above the 7th and 8th roadwheel.



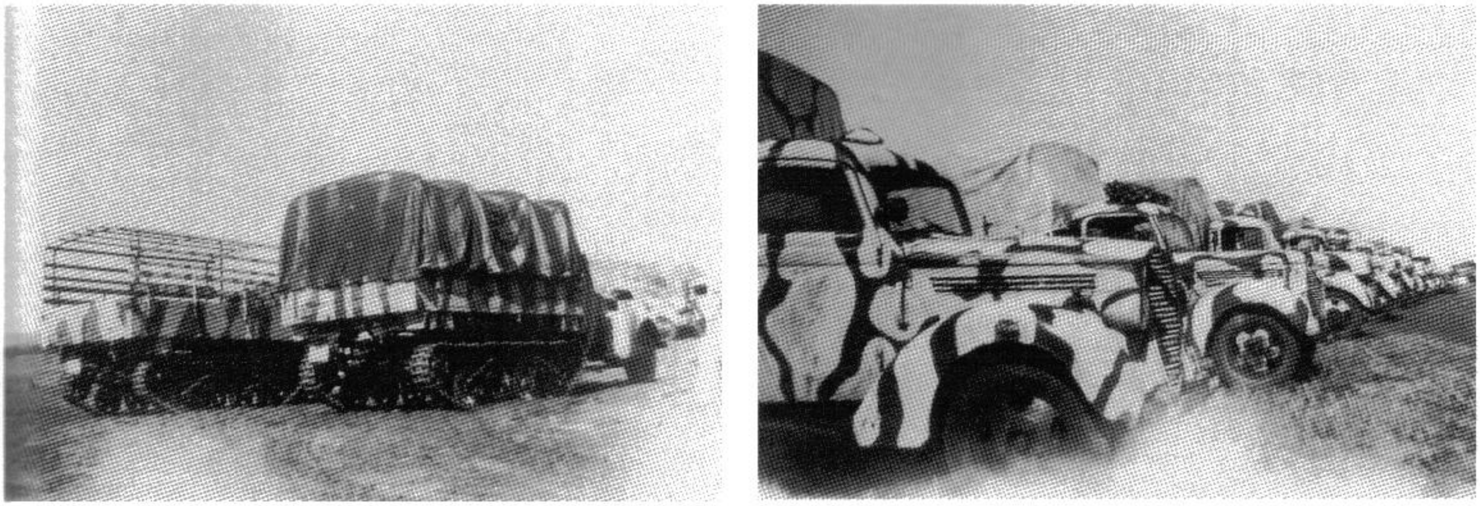
A very boldly camouflaged, factory fresh Tiger I of s.Pz.Abt.502 is demonstrated to the Japanese Ambassador to Germany, General Oshima and his aide, in June 1943, near Siverskiy. They were impressed enough that, after a meeting and tour of the Henschel works in Kassel in July, an agreement was reached to send a dismantled Tiger I to Japan by submarine. This plan, however, never came to fruition, which is just as well, as the jungles of the Pacific islands were as unsuitable for the Tiger as the forests of Northern Russia.



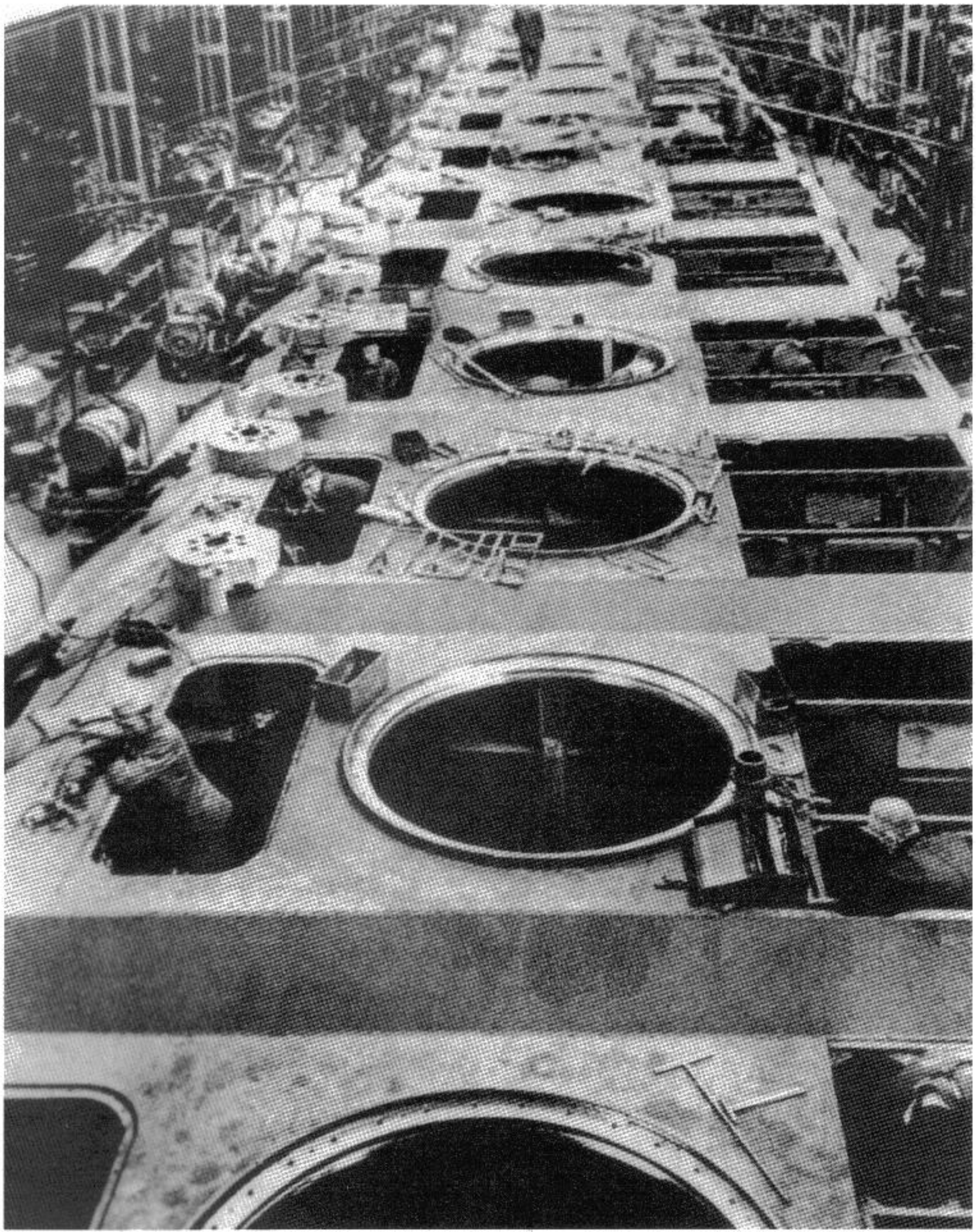
A Turkish military delegation visits s.Pz.Abt.503 in June 1943. The Tiger I was Germany's favorite showpiece, exhibited to many of the military inspectors of her Axis partners who traveled along the Eastern Front during 1943.



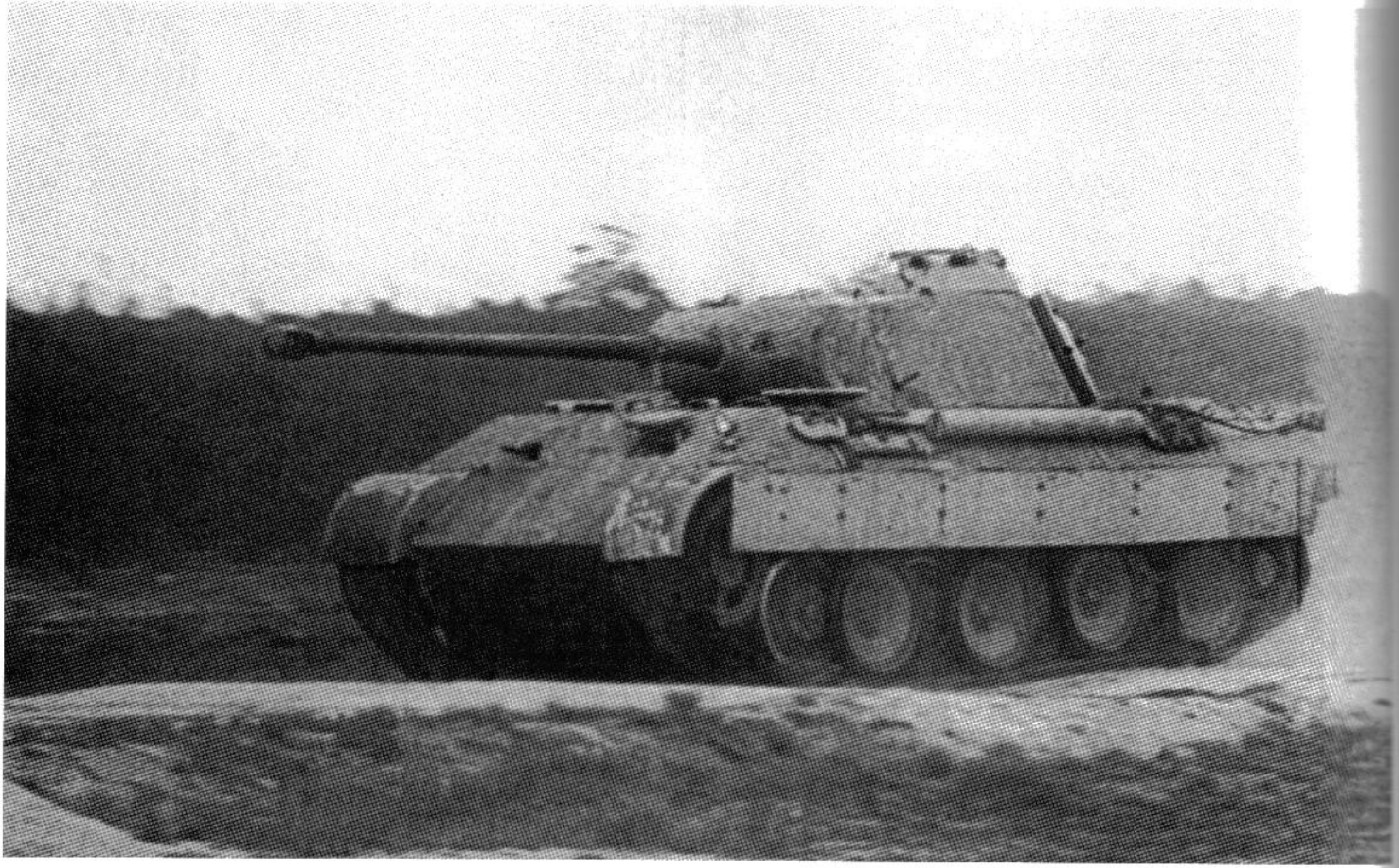
Two German soldiers while away their time on a wood and paper model of a Tiger I in front of a captivated audience of young Russian boys. During breaks in the fighting, the men would try to find relaxing activities to engage in before the next action. They have done a very credible job, given the tools they have to work with, and the completed model is quite a good replica, down to the camouflage paint finish and workable hatch. The man in uniform is wearing a slip-on shoulder strap title with his regiment number '601' embroidered on it. He may be from one of the divisional anti-tank units, which were numbered in this series and were usually, but not always, accompanied by the letter 'P' for Panzerjäger.

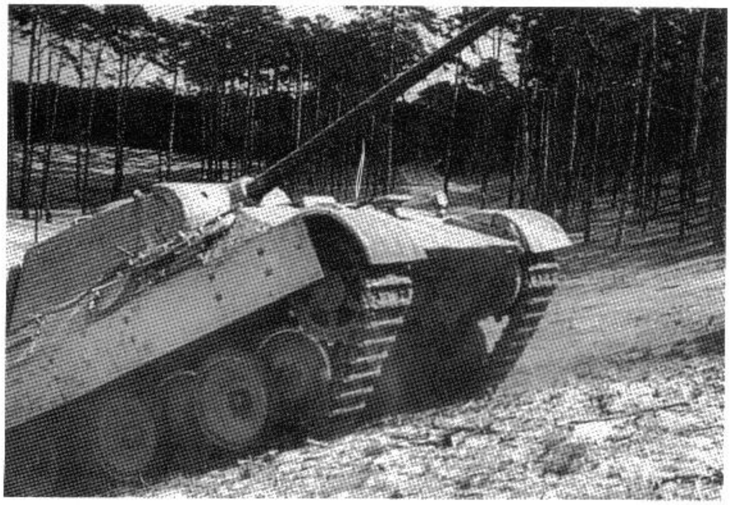


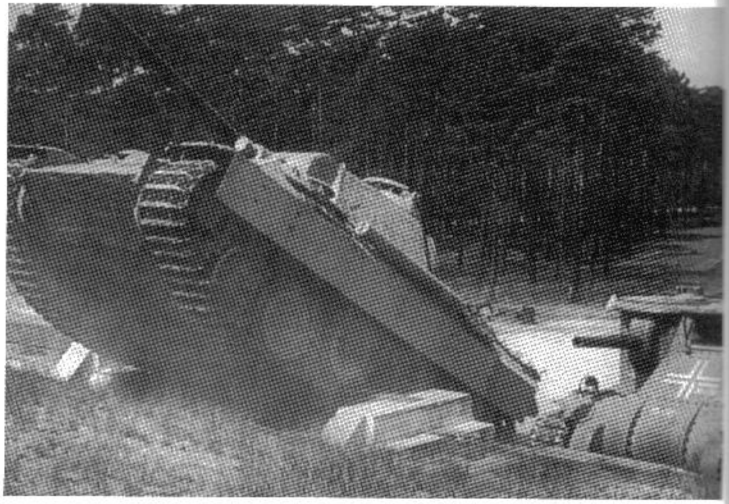
A new type of vehicle that started to appear in the Panzer-Divisions in late 1942 were the semi-tracked transport trucks designed for multi-purpose service on the Eastern Front. The concept of this vehicle was based on a light tracked chassis that replaced the rear wheeled axle, originally on Opel, Ford and Magirus 2-3-ton trucks. Other 3-ton semi-tracked trucks were produced by Klockner, Henschel and Mercedes-Benz along with a few Mercedes-Benz 4 1/2-ton trucks. Here we see a line of 'Maultiers' (Mules), as they were called, built on the Ford G917T or G977T 3-ton truck which was manufactured between 1939 and 1942. Very few of this type were made before production switched to their V-3000S model. A bold camouflage pattern of sand yellow has been applied over the original dark gray color. Markings include the tactical sign for the second company of a motorized infantry division, painted on the left rear of the cargo compartment and on the left front mudguard along with the standard Wehrmacht vehicle number plate on the rear only. Tire pressure markings appear on the side of the front mudguards.

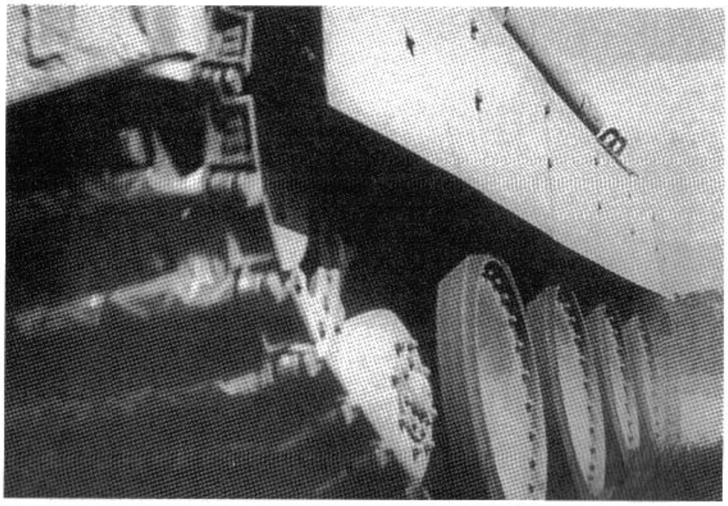


An assembly line of Panther Ausf.G at one of the factories in 1943. By the end of 1943, the best equipped Panzer-Divisions had been reorganized to consist of one battalion equipped with Pz.Kpfw.V Panthers and the other with Pz.Kpfw.IV. To increase their operational strength, other Panzer-Divisions were reorganized with a III.Abteilung equipped with StuG.III. This was mainly due to the low production rate of the Panther.

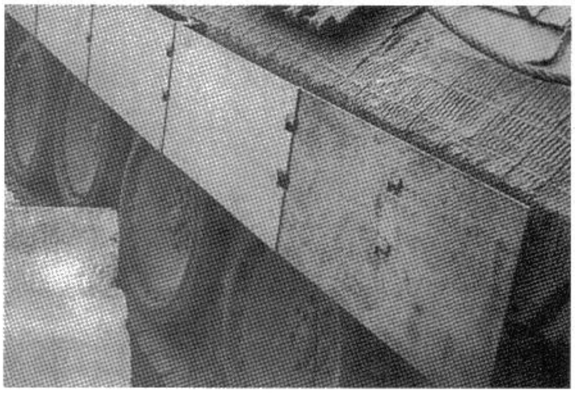


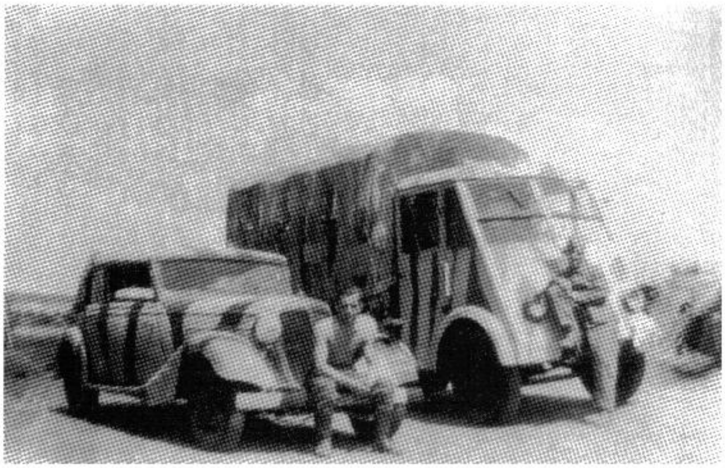




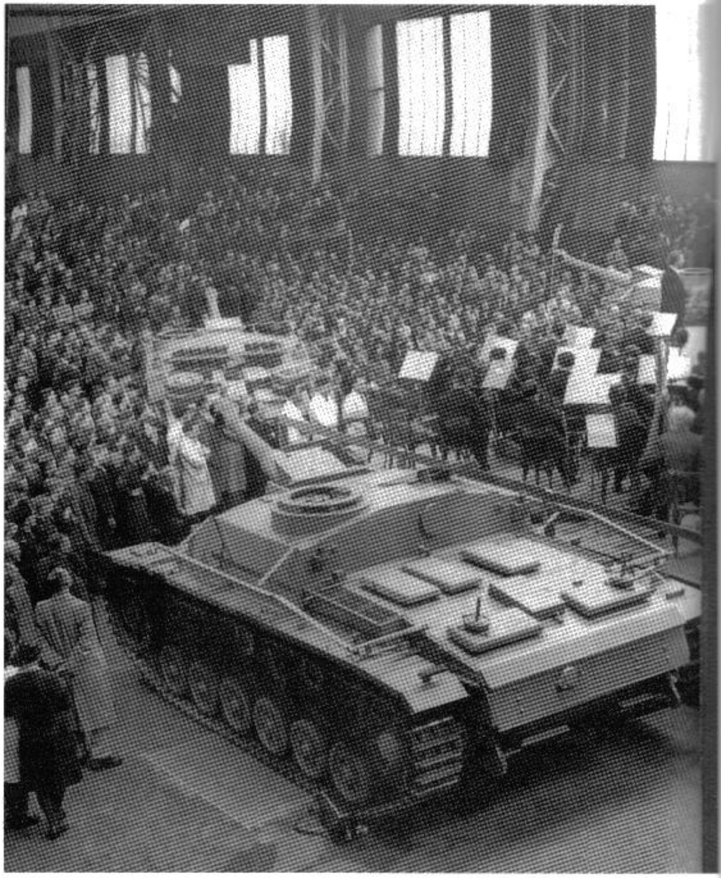


The new tank that appeared on the organizational tables of the Panzer-Divisions in the spring of 1943 was the Pz.Kpfw.V Panther. The first Panthers were produced in January 1943 and by the end of the month, began to be distributed to the units for training. However, due to mechanical problems, most were returned to the factories for a major rebuild and for Operation 'Citadel', only 200 were available to the two brigades formed specially for the Panther, Pz.Abt.51 and 52. Here we see a series of photographs taken during trials of a Pz.Kpfw.V Ausf.A Panther being examined together with a Tiger I and a captured Soviet M3 Lee tank on the Wehrmacht testing ground at Kummersdorf. The Zimmerit on the Panther would indicate that the photographs were taken sometime after September 1943. It is painted in sand yellow but the gun barrel is probably a replacement and appears to be a darker color, possibly red primer. In one photo, an illegible chassis number has been painted on the glacis. Note how the Zimmerit has been badly chipped from one mudguard and is missing completely off the other.

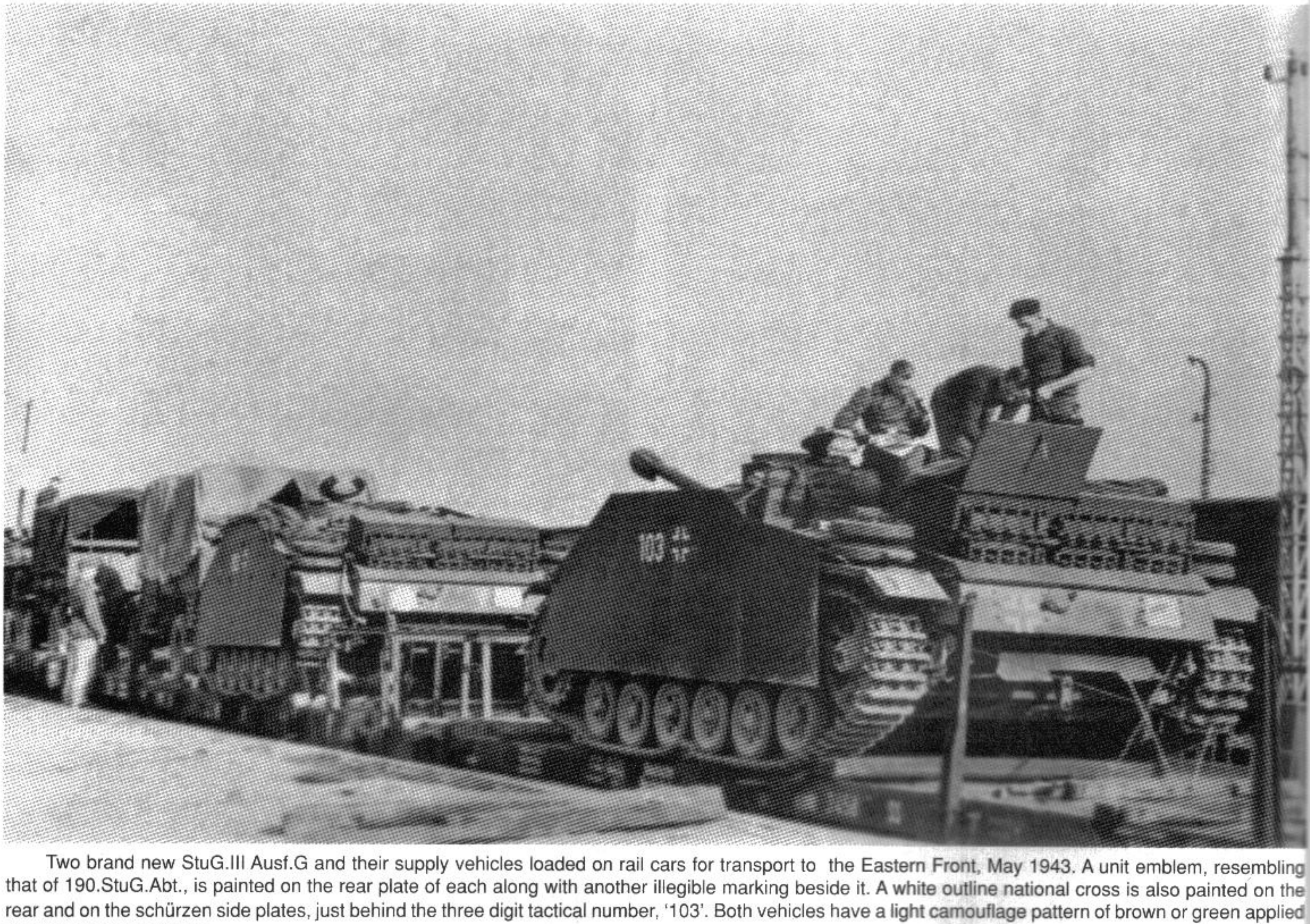




Two similarly camouflaged vehicles. The staff car on the left is a Wanderer W 50 while the vehicle on the right is a Renault AHN 3 1/4-ton truck. On the left mudguard of the staff car can be seen the tactical sign for a motorized infantry division.

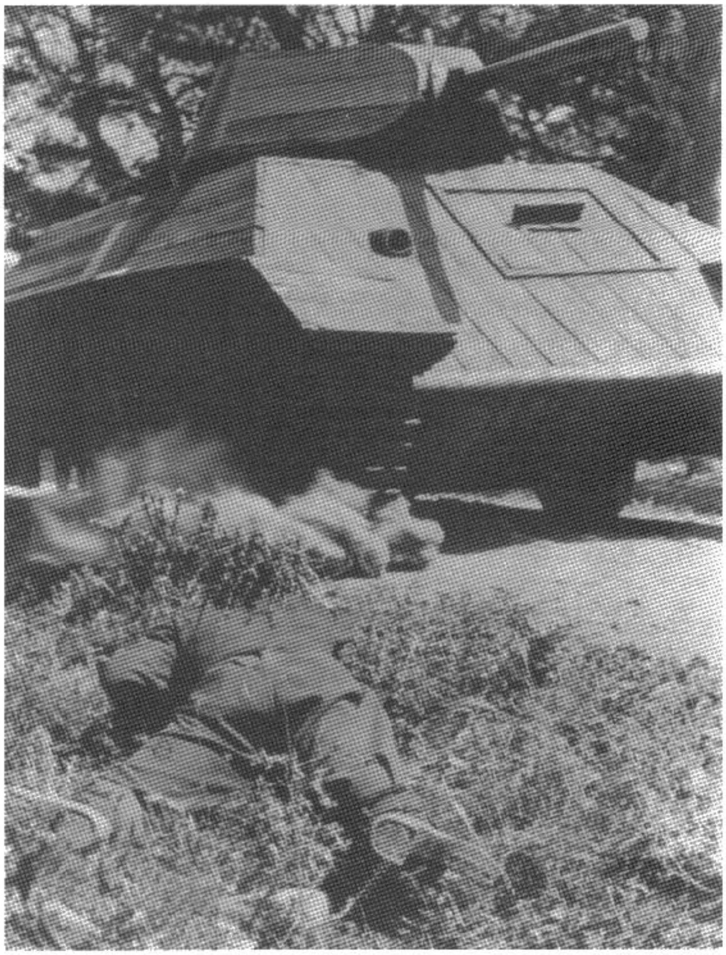


As German industry tried to increase war production, they often engaged in morale boosting exercises in the factories, such as visits and speeches by dignitaries and highly decorated veterans. Here, workers at the Alkett plant manufacturing the 10.5cm Sturmhaubitze 42 are treated to a concert by the Deutsche Oper under the direction of Hans Schmidt-Isserstedt, in June 1943. Alkett did not begin applying Zimmerit to their vehicles until late November 1943. Note how clean the vehicles are as they leave the assembly line.

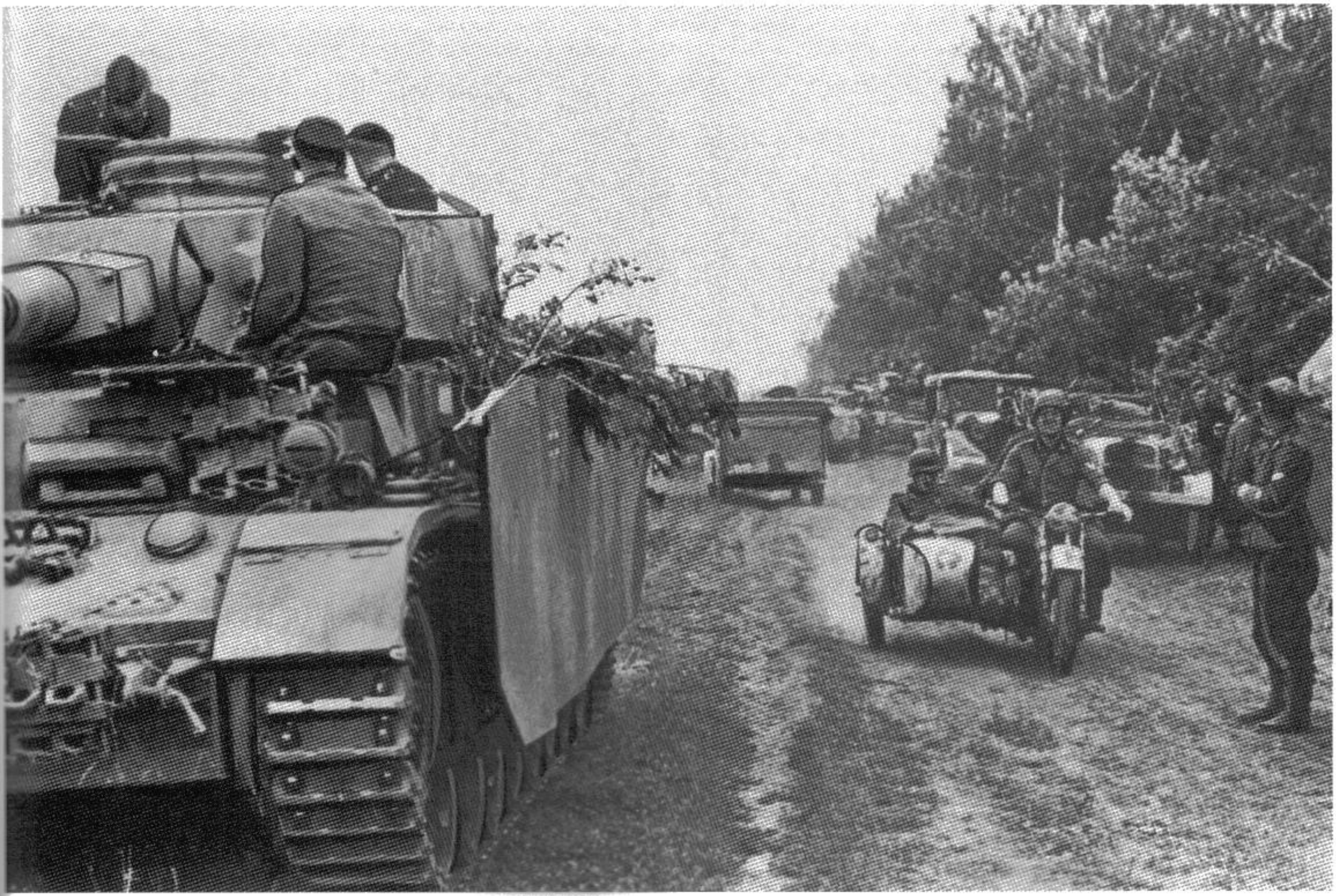


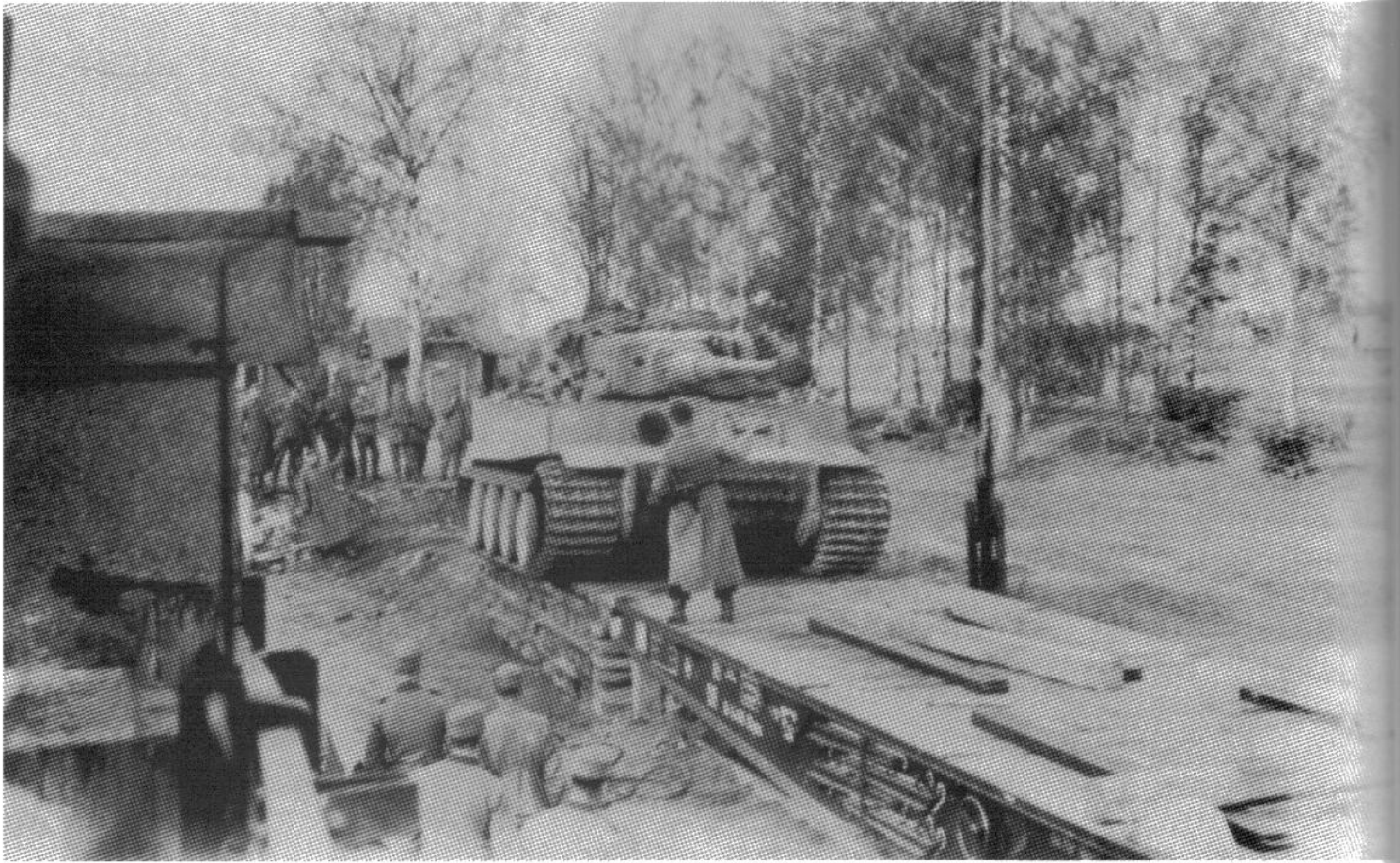
Two brand new StuG.III Ausf.G and their supply vehicles loaded on rail cars for transport to the Eastern Front, May 1943. A unit emblem, resembling that of 190.StuG.Abt., is painted on the rear plate of each along with another illegible marking beside it. A white outline national cross is also painted on the rear and on the schürzen side plates, just behind the three digit tactical number, '103'. Both vehicles have a light camouflage pattern of brown or green applied over the dark sand base.

German infantry recruits were often trained in tank killing tactics using full scale mock-ups of Soviet tanks constructed from wood on car chassis. This photo shows one built to resemble a T-34 about to be attacked by the soldier laying beside the road. Realistic exercises like this helped the new men to be better prepared for actual combat situations.

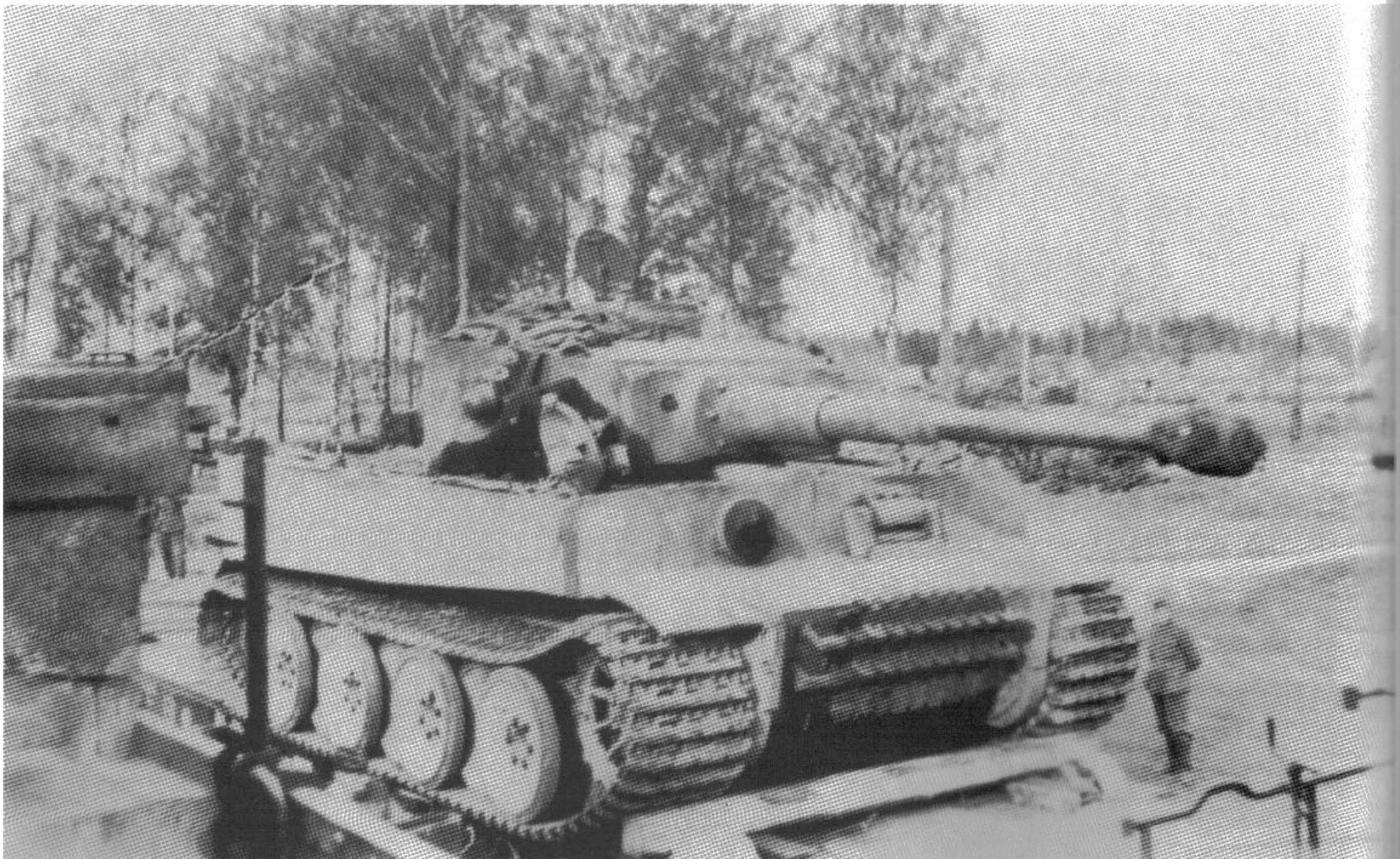


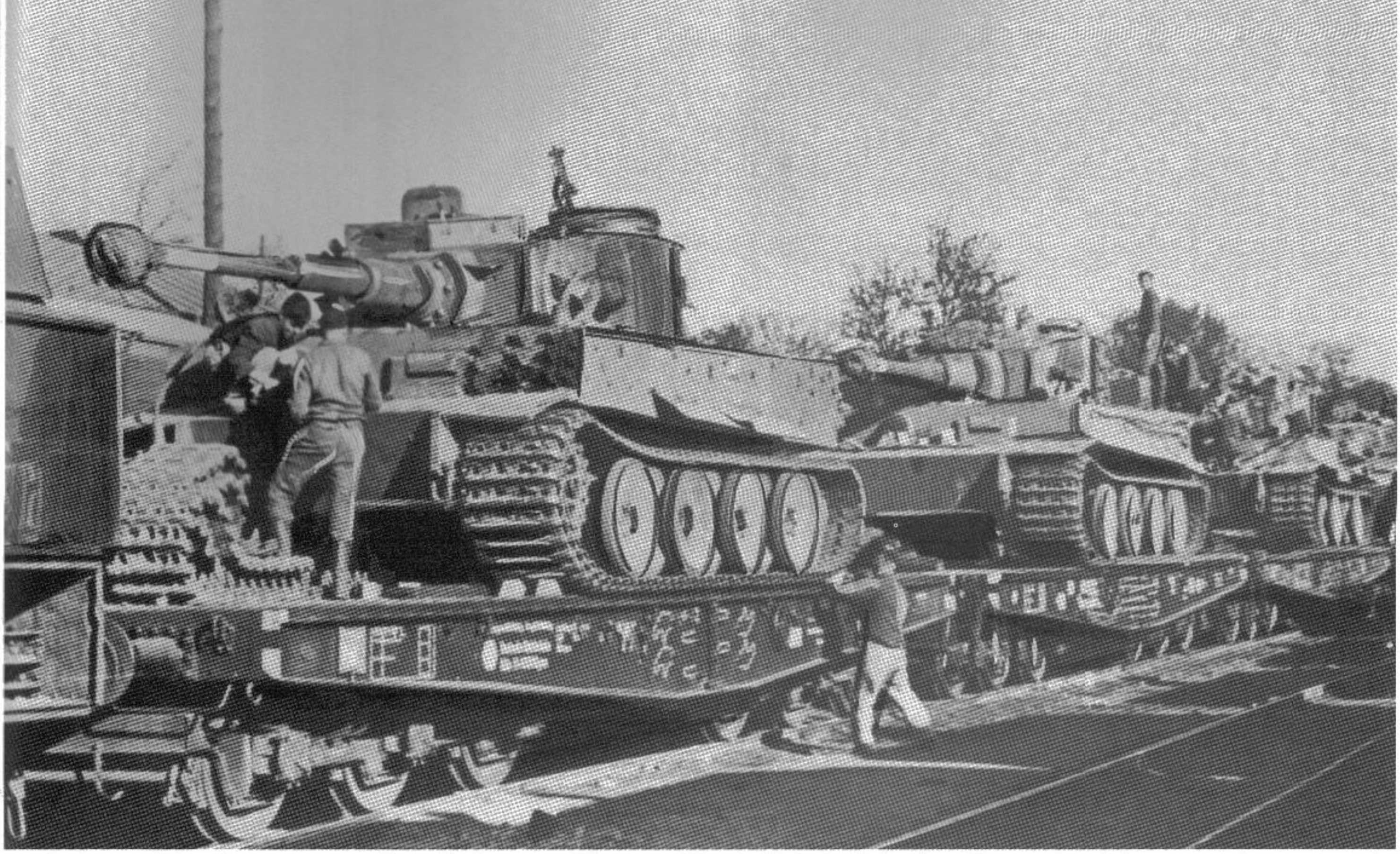
Vehicles of a Panzer-Division group for an attack during Operation 'Citadel' in late June or early July, 1943. The German Army used a lull in the fighting during the spring to bring up the strength of the Panzer-Divisions for a new phase of exhaustive fighting with new and replacement combat vehicles. Many Pz.Kpfw.III and Pz.Kpfw.IV were upgraded with additional protection in the form of armor skirts, called schürzen, as seen on this Pz.Kpfw.IV Ausf.G. It has been painted in a three color camouflage scheme and has the tactical number '112' painted in a white stencil outline on the turret skirt. A Balkenkreuz appears in an unusual location on the second side skirt plate.



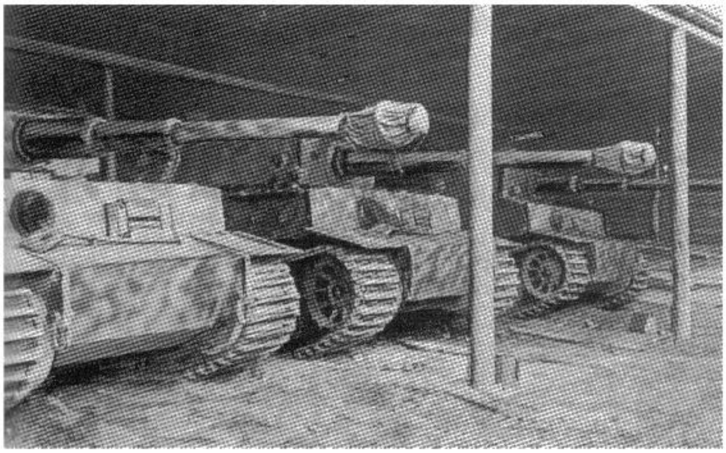


Two photographs of one of the first nine Tigers of s.Pz.Abt.502 being unloaded from a railroad flatcar at its destination in Russia in the late autumn of 1942. It was produced in early November 1942 as it is fitted with the new standard track but still has not been fitted with the side track guards. Not visible in the photos is the Pz.Kpfw.III stowage bin carried on the rear of the turret. The tactical number '102' has been painted in white outline on the side of the turret along with a large white outline Balkenkreuz on the side of the hull just ahead of the last outside roadwheel and the emblem of s.Pz.Abt.502, a white outline 'Mammut', on the front plate. Though it appears a light color, it is still in its original dark gray paint with a heavy coating of dust.



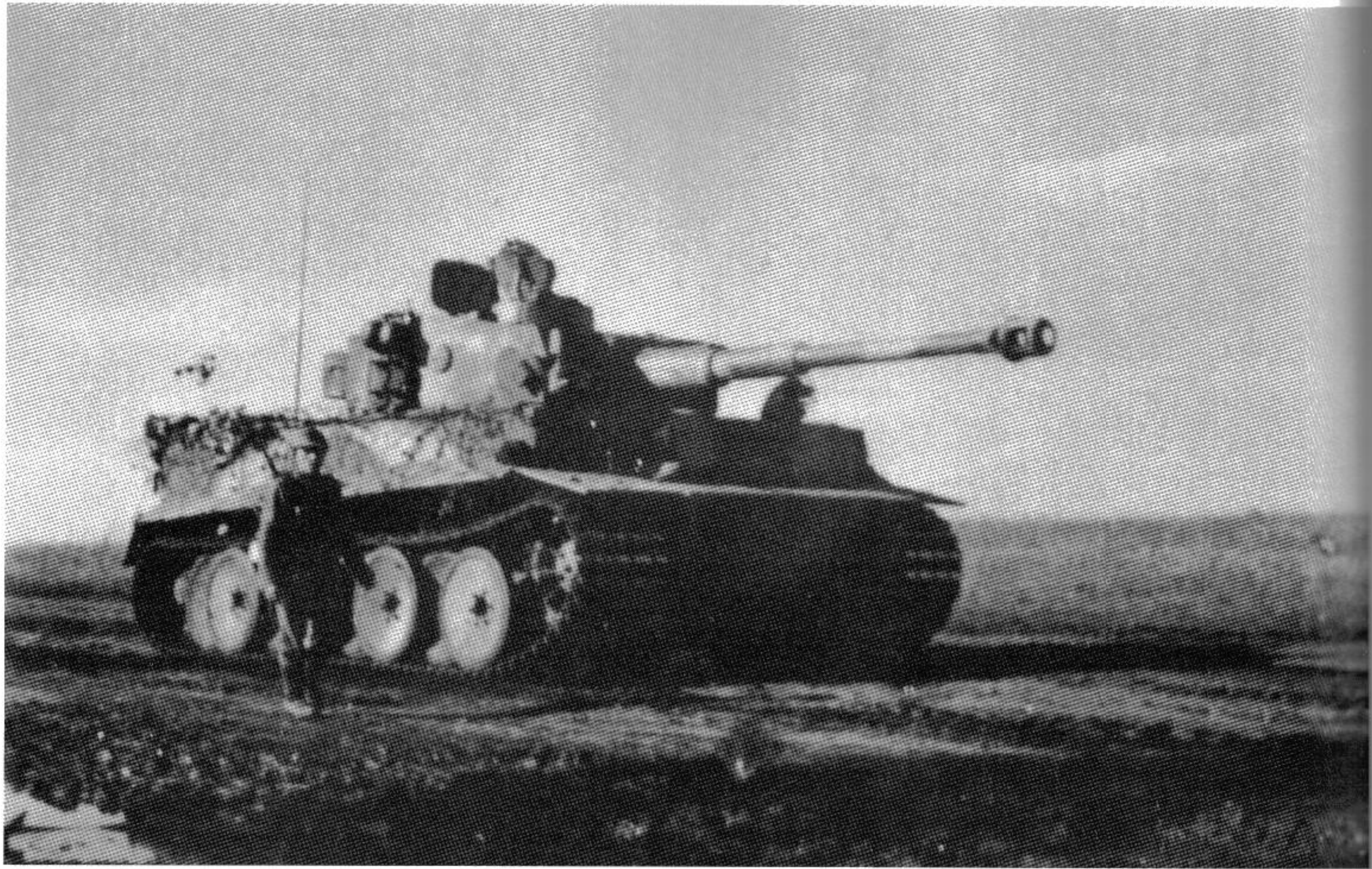


A platoon of Tigers being transported by rail in June 1943. They are still fitted with their wide battle tracks even though the narrow rail transport tracks are available as can be seen in front of the nearest tank. The additional tracks contributed to the high cost of the tank and were extremely troublesome and time consuming for the crew to change. They also needed to be transported wherever the Tigers were sent.

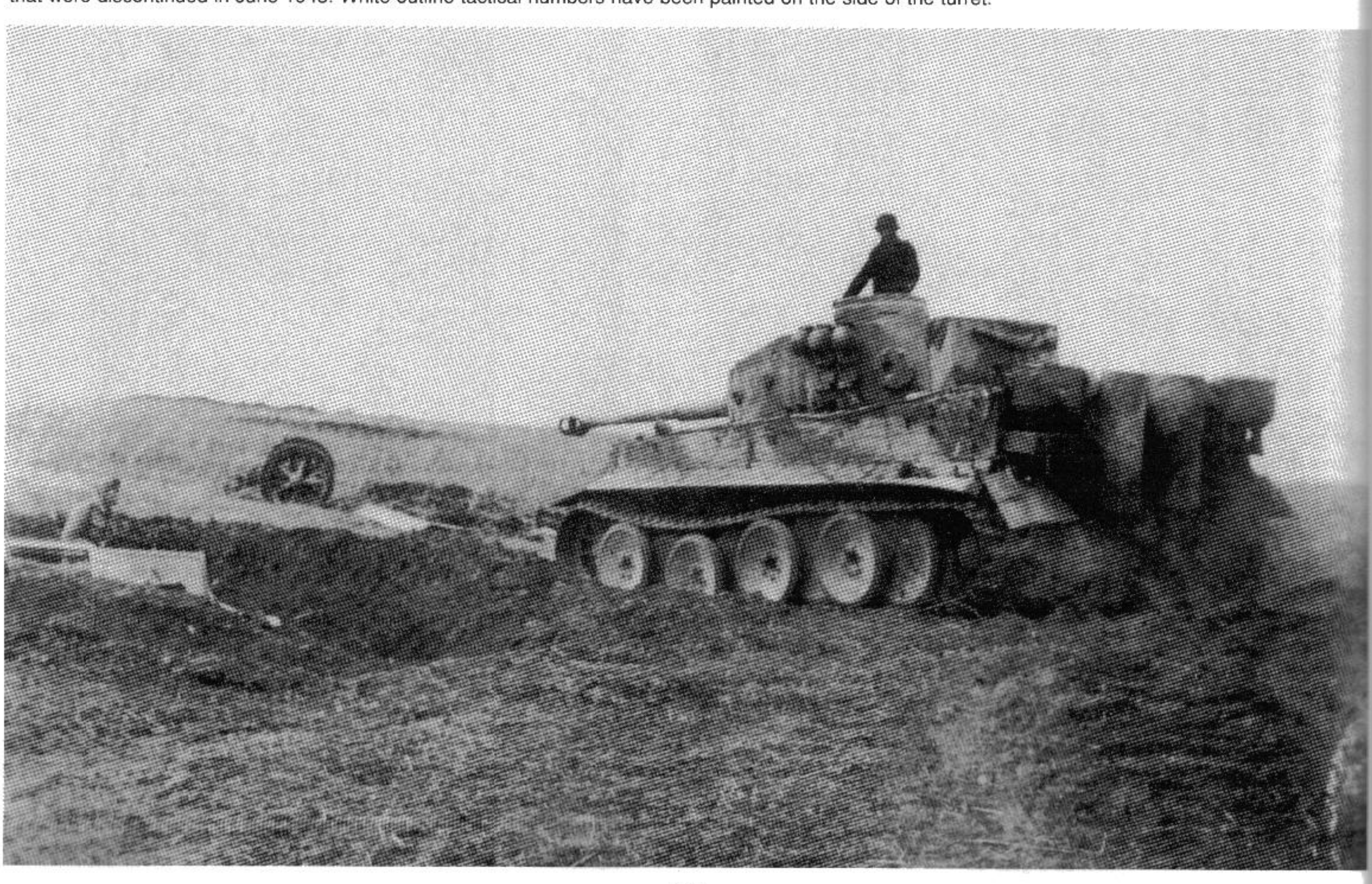


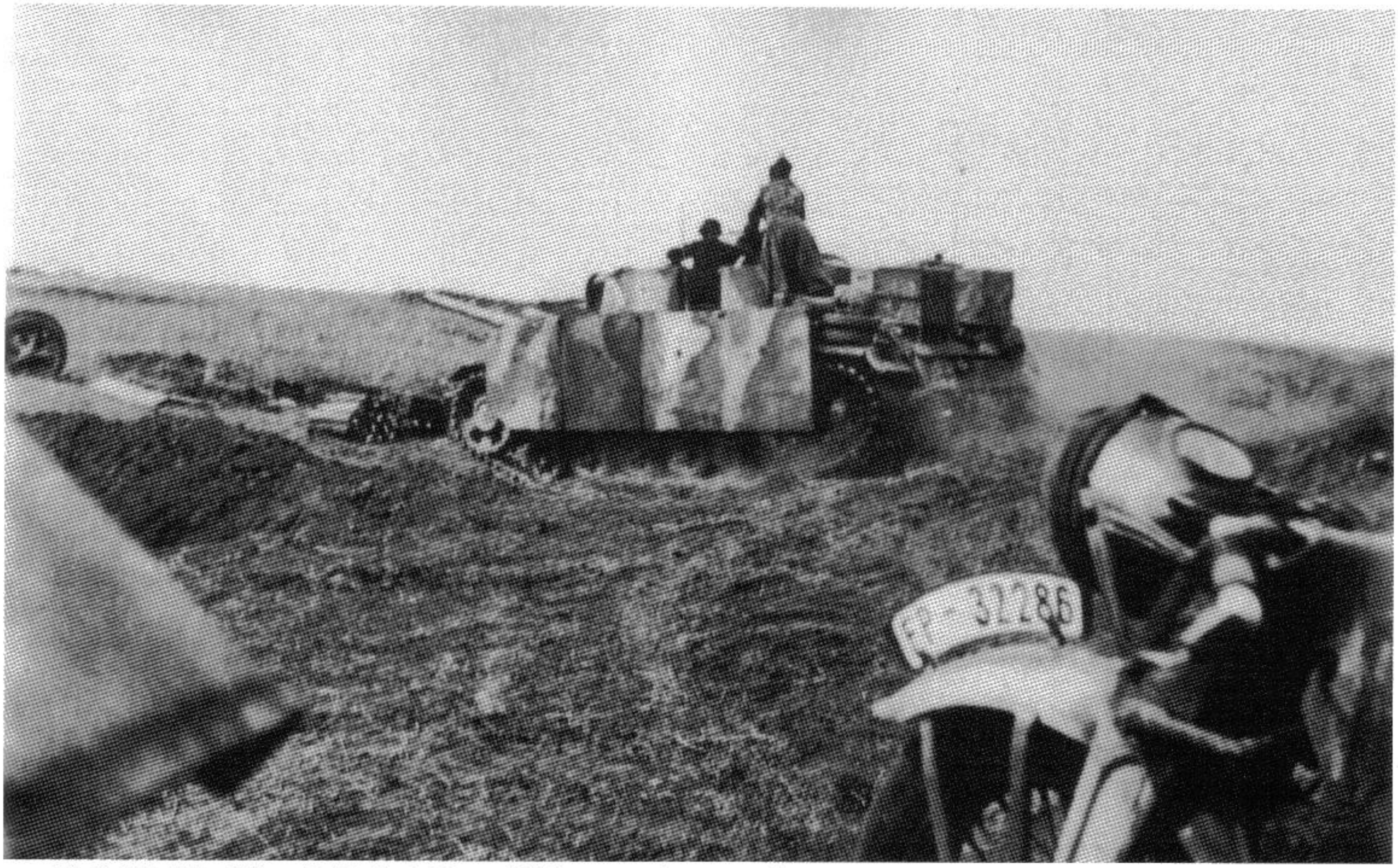
A trio of Tigers from s.Pz.Abt.503 take shelter under a farm shed in the Soviet Union in June 1943. Despite the heavy hand of the censor, the photo shows a very interesting camouflage pattern of green-brown wavy lines uniformly applied to each vehicle.

It is no wonder that Tiger crews felt fortunate to serve in the heavy tank battalions in the summer of 1943. The Soviets had nothing to deal with the Tigers at this time except at very close range and the Tiger crews had a higher rate of survival than their counterparts in the Panzer-Divisions. This grimy, but smiling, driver is seen emerging from his vehicle.



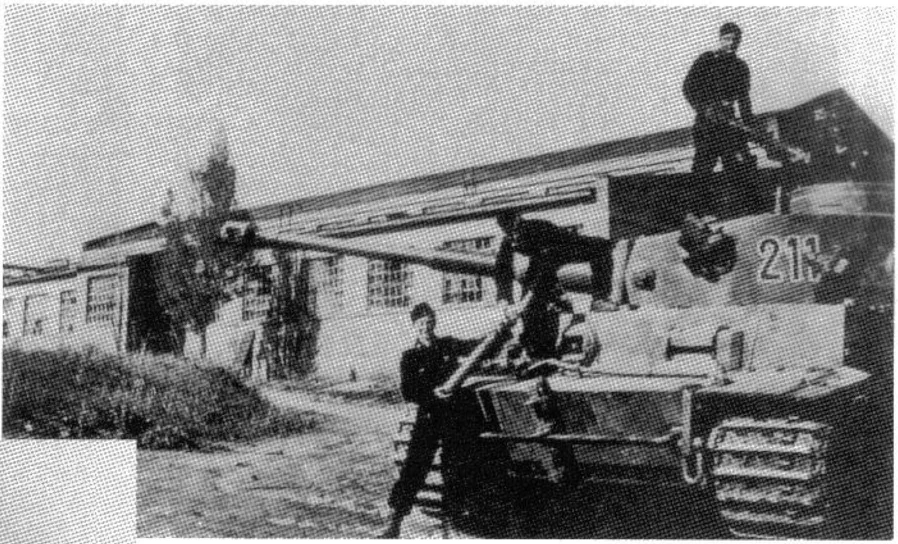
Two photos of Tigers employed by s.Pz.Abt.505 for Operation 'Citadel' in the northern sector during July 1943. Both vehicles are finished in the same way with a green or brown wavy camouflage pattern over the sand yellow base and barbed wire strung along the sides of the tank to discourage Soviet infantry from boarding. They are from the early production series, still with the Feifel air cleaners but without the turret mounted smoke candle dischargers that were discontinued in June 1943. White outline tactical numbers have been painted on the side of the turret.

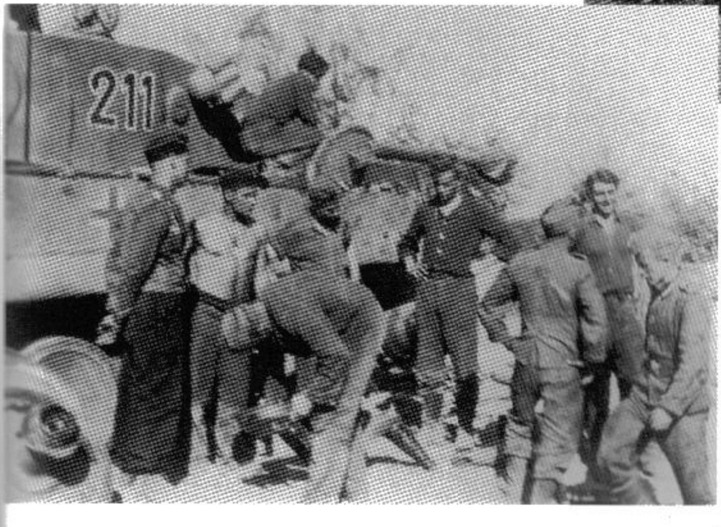




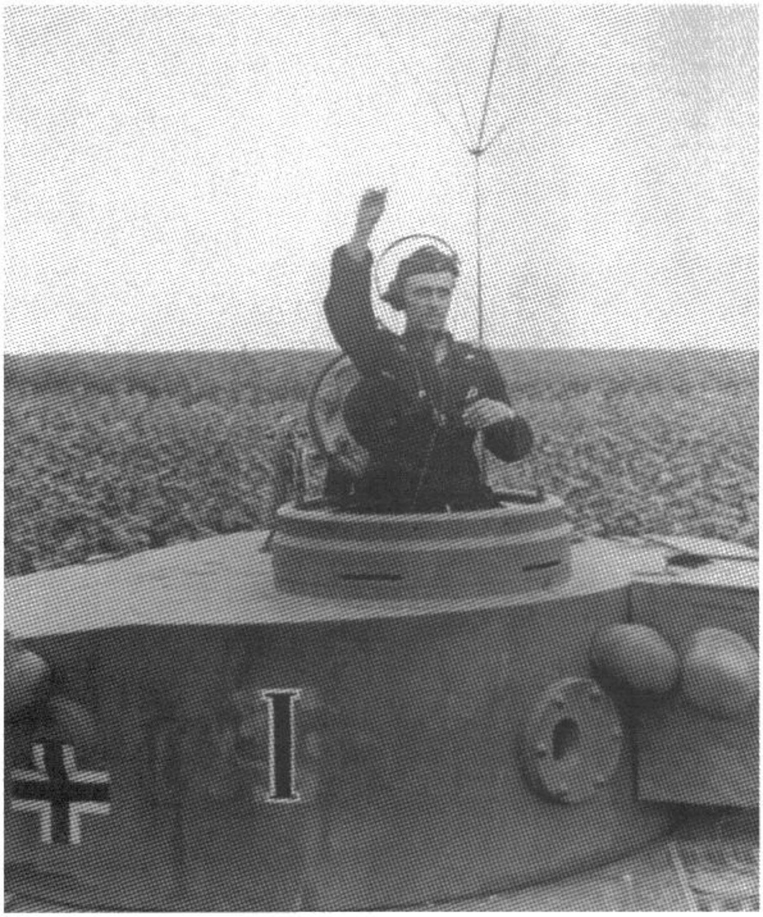
A Pz.Bef.Wg.III Ausf.K from Pz.Rgt.35 of 4.Panzer-Division passes the same artillery position as the previous Tiger I. The standing bear emblem can be seen on the turret side skirt along with a black and white Balkenkreuz. It is finished with a heavy three color camouflage scheme composed of large spots of green and brown applied over the sand yellow base. Most Pz.Bef.Wg.III Ausf.K were converted from Ausf.M production although there were a few converted from Ausf.L production such as this one.

The crew of Tiger '211' from s.Pz.Abt.503 replenishing ammunition in preparation for the next battle. Numbering within the heavy tank battalions usually followed that of the Panzer-Divisions, in this case, the first tank in the first platoon of the second company. Whereas the standard organization of a Panzer-Division normally had four companies of twenty-two tanks at that time, the heavy tank battalion was equipped with three companies of fourteen tanks each.



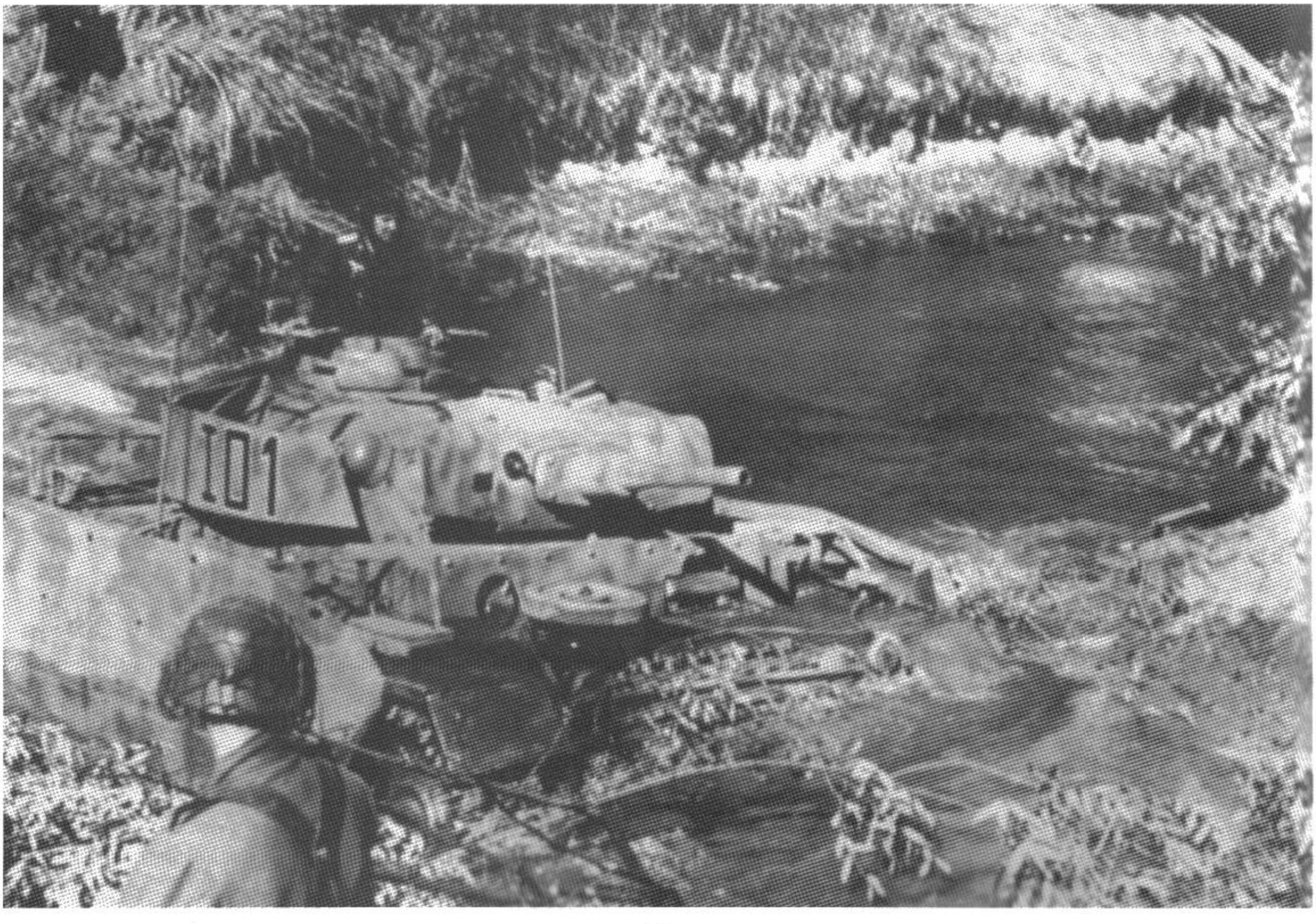


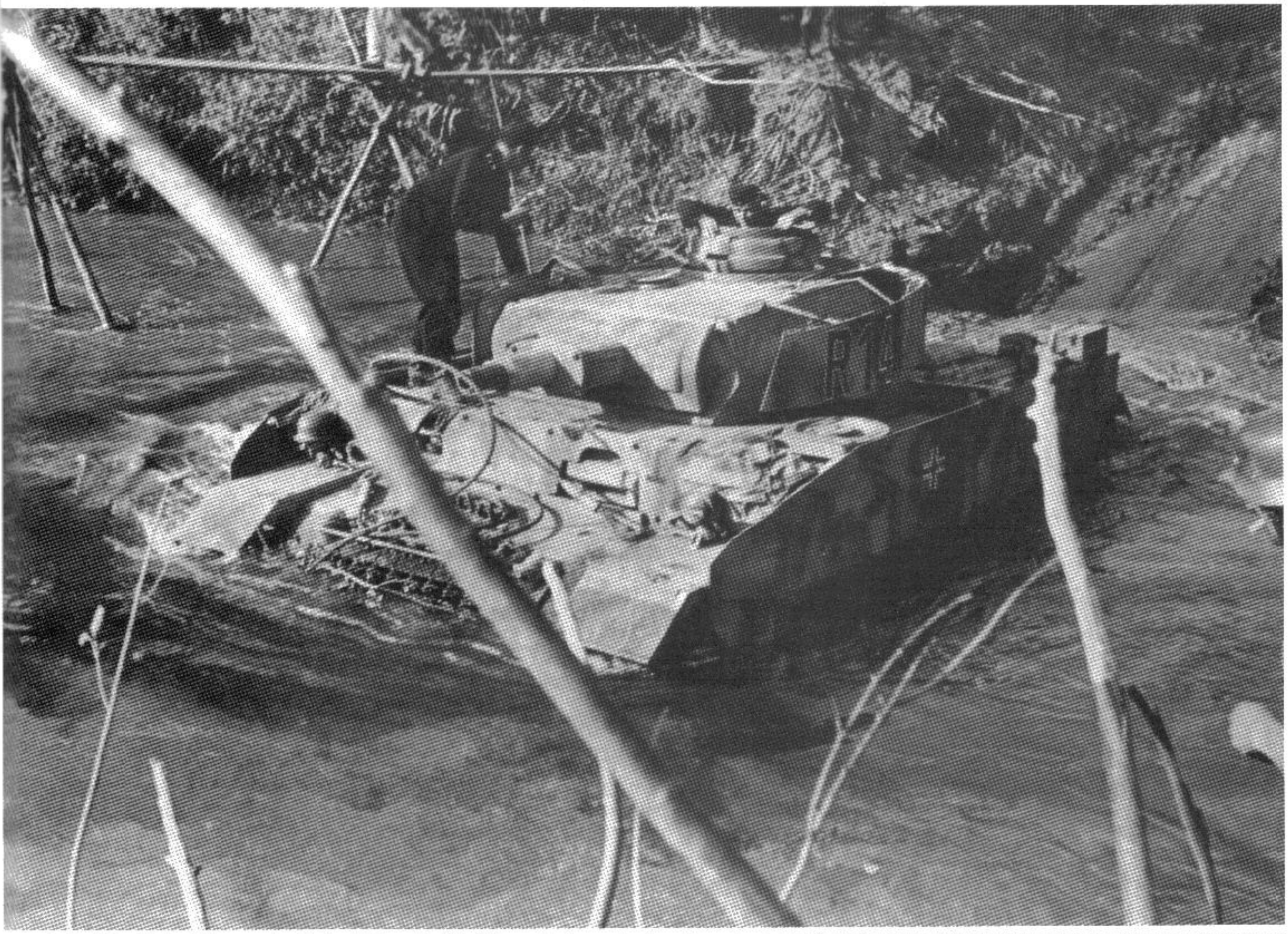
The battalion Werkstatt-Kompanie carries out repairs to the suspension of Tiger '211' after it has been damaged during a battle. Newly painted tactical numbers on the turret stand out in contrast to the Balkenkreuz painted on the side of the hull. The interleaved suspension of the Tiger usually required several wheels to be removed to gain access to an inside roadwheel, a very time consuming task.



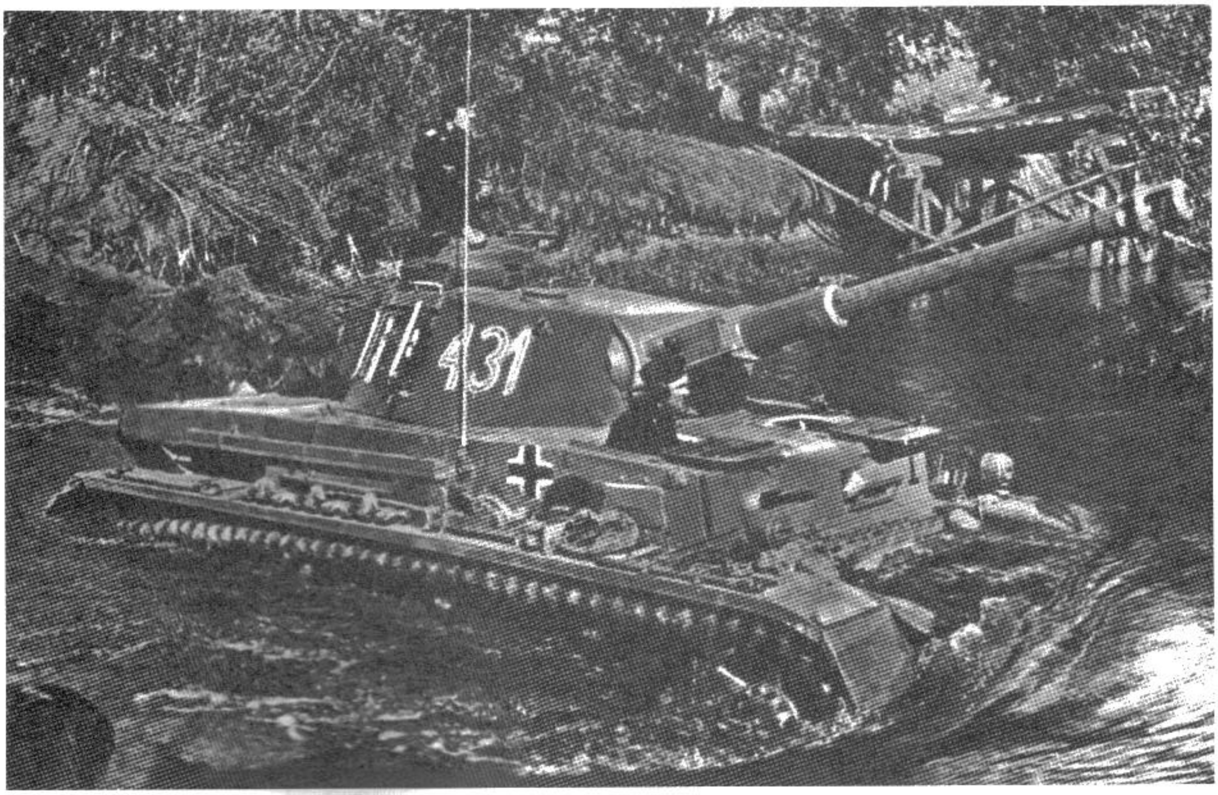
An Oberleutnant from the battalion staff signals to a comrade from the turret of a Panzerbefehlswagen Tiger in August 1943. Very few Befehlswagen Tigers were built and of those, 18 were converted back to standard gun tanks in November 1943. They were equipped with additional long range radios, a Fu 8 with a star antenna fitted to the right side of the engine deck, or a Fu 7 with a 1.4m antenna on the left side of the engine deck plus the standard Fu 5 with the 2m rod antenna mounted on the turret roof. The tactical marking 'I', which is painted black with a white outline, indicates this is the tank assigned to the battalion commander of S.Pz.Abt.503.

A Pz.Bef.Wg.III Ausf.J assigned to the I.Bataillon commander, Pz.Rgt.25, crosses a small stream near Kursk in July 1943. It has been fitted with the additional 20mm spaced armor plates to the front of the hull and gun mantlet as well as a complete set of schürzen around the turret and sides of the hull. A textbook camouflage pattern of light green and brown has been sprayed over the dark sand base color and new tactical markings, 'I02', have been painted in black with a white outline on the turret schürzen. The new black inverted 'T' insignia of 7.Panzer-Division is visible on the front plate beside the driver's visor.

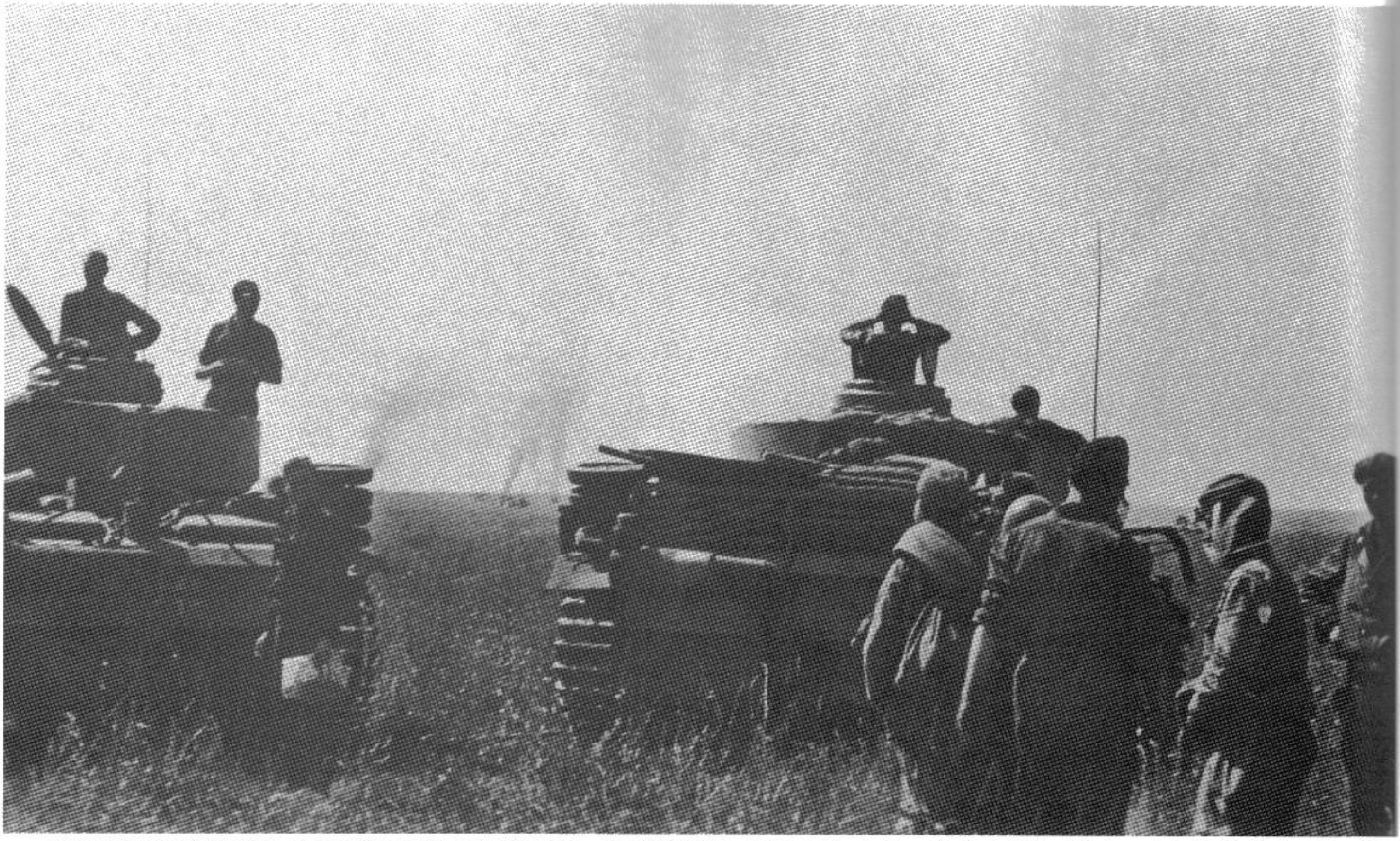




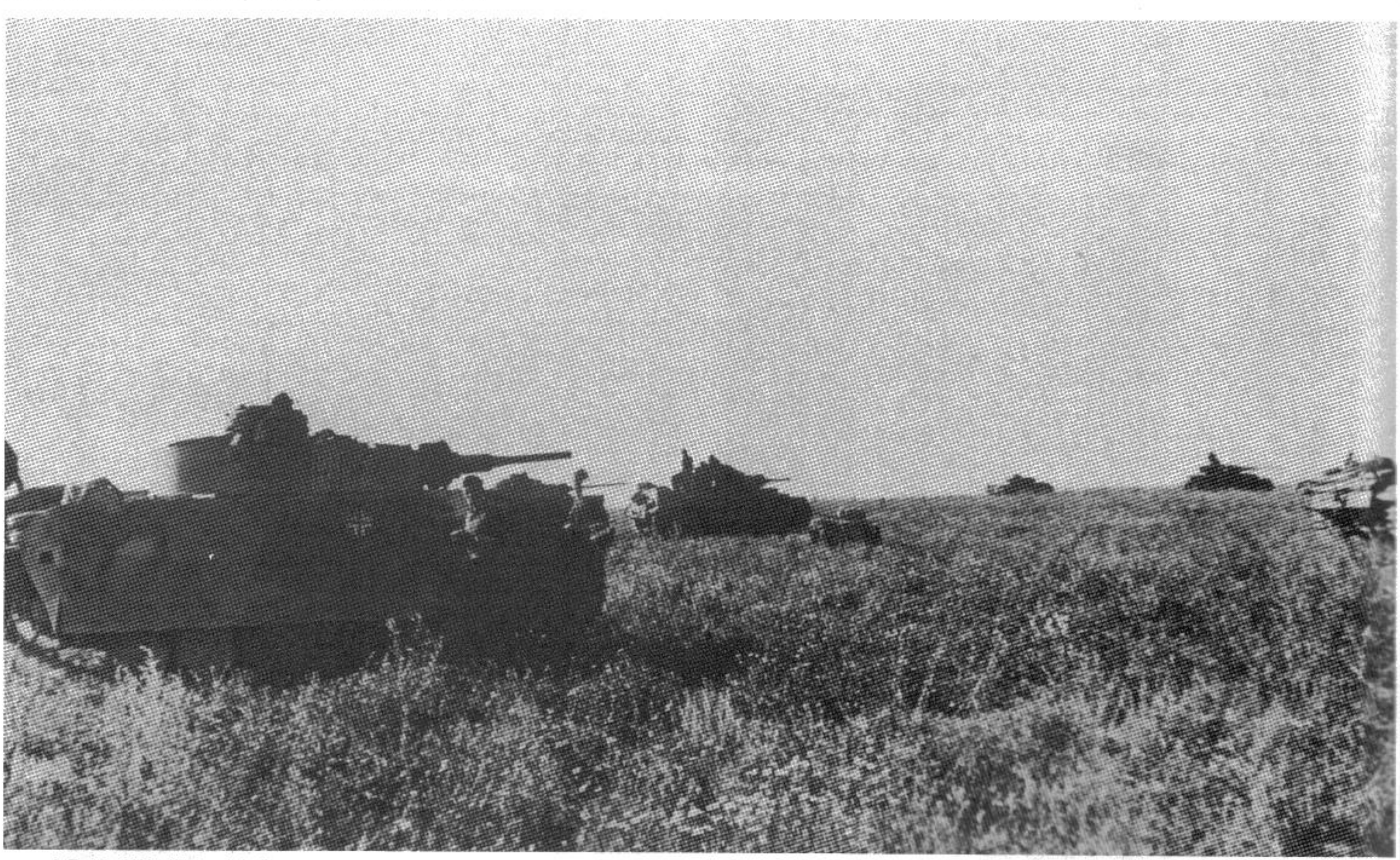
A Pz.Kpfw.III Ausf.N armed with the 7.5cm KwK L/24 gun that was being phased out on Pz.Kpfw.IV and StuG.III production. The new insignia of 7.Panzer-Division is also visible beside the driver's visor. Markings indicate it is the fourth (4) vehicle assigned to the Aufklärung Zug (1) in the Regimental Stabskompanie (R) which is unusual, as according to the table of organization, it should have been the third vehicle assigned to the Nachrichten Zug of the Battalion staff. Pz.Rgt.25 had 55 Pz.Kpfw.III on hand for Operation 'Citadel' on July 1, 1943, 12 of which were Pz.Kpfw.III Ausf.N.



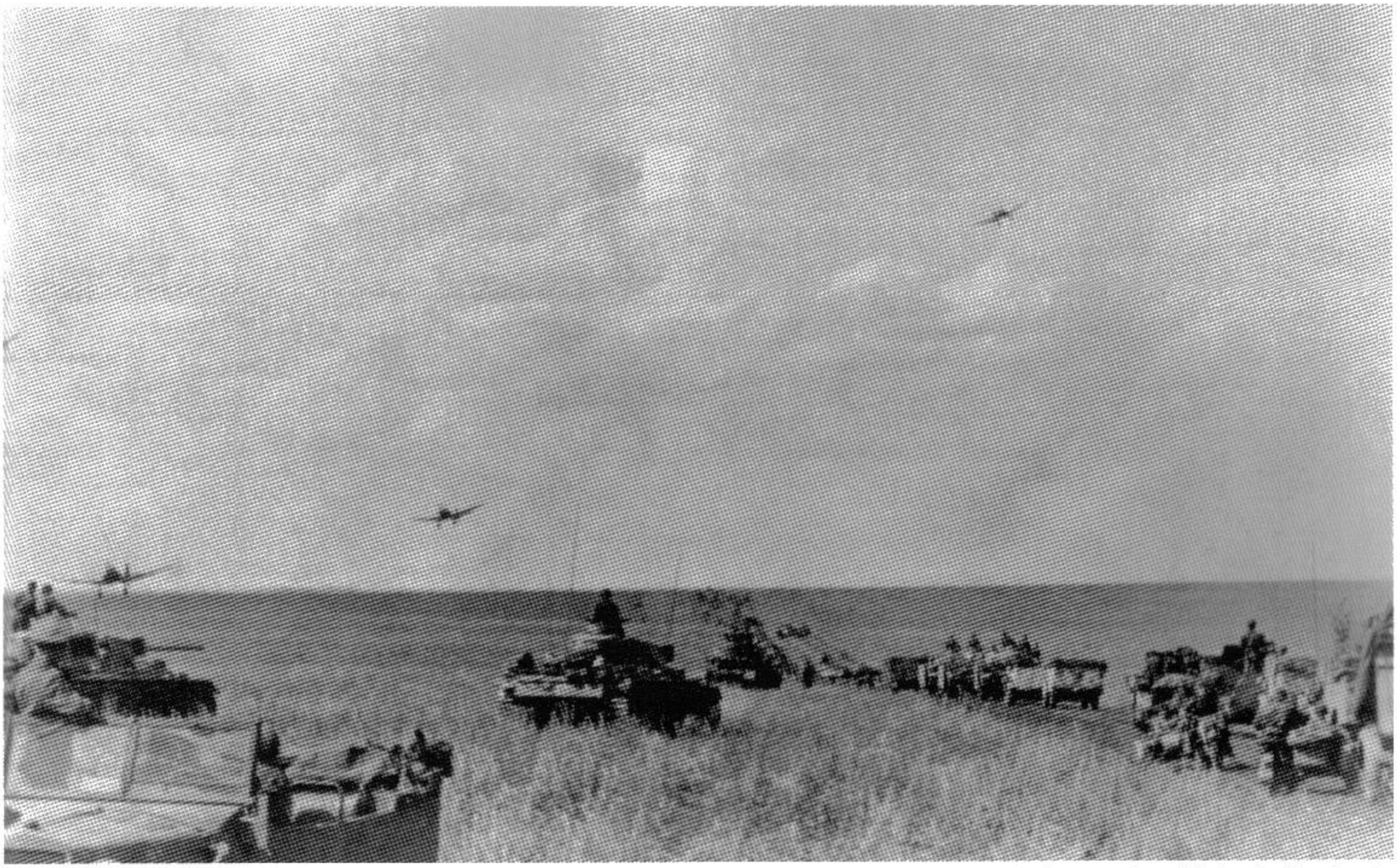
A new looking Pz.Kpfw.IV Ausf.G from 7.Panzer-Division fords the same stream. It appears unusually dark but is probably still finished in dark sand with red and white outline tactical numbers on the turret. Again, the new divisional emblem is visible on the front plate.



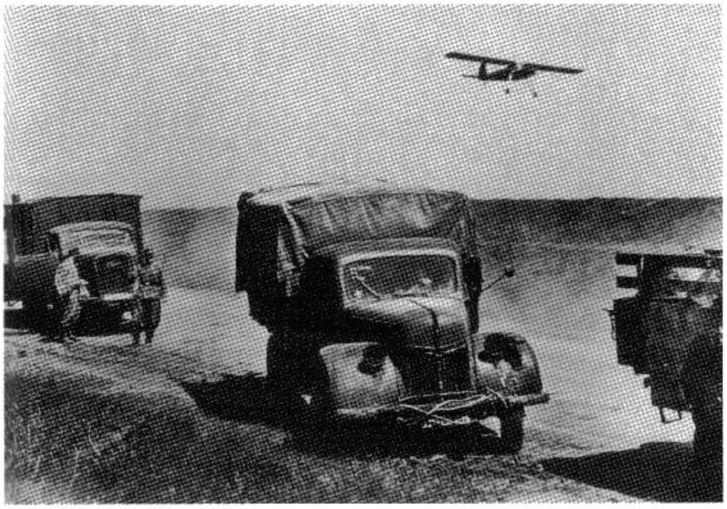
Two command Pz.Kpfw.III observe the battle in the distance, July 1943. The vehicle on the left is a Pz.Kpfw.III Ausf.K, based on the Pz.Kpfw.III Ausf.M, but fitted with a modified Pz.Kpfw.IV turret equipped with a 5cm KwK39 L/60 gun. It has an unusual two digit tactical number, '22', painted in white outline on the rear of the turret schürzen. A star antenna is mounted in the center of the engine deck. On the right is a standard Pz.Kpfw.III Ausf.M being used as a staff vehicle. Note the deep wading exhaust on both.



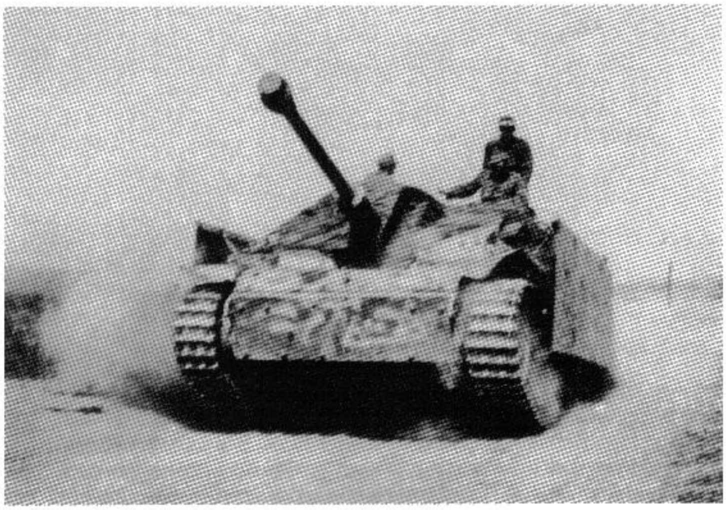
A Pz.Bef.Wg.III Ausf.J, fitted with the 5cm KwK L/42 and a full set of schürzen, photographed in the Bjelgorod area in late July 1943. It has also been uparmored with the additional 20mm spaced armor plate on the mantlet and, probably, on the front of the hull as well. Barely visible on the original print is the star antenna mounted on the rear of the engine deck. The white outline tactical number 'R02' indicates this vehicle is assigned to the Regimental Adjutant.



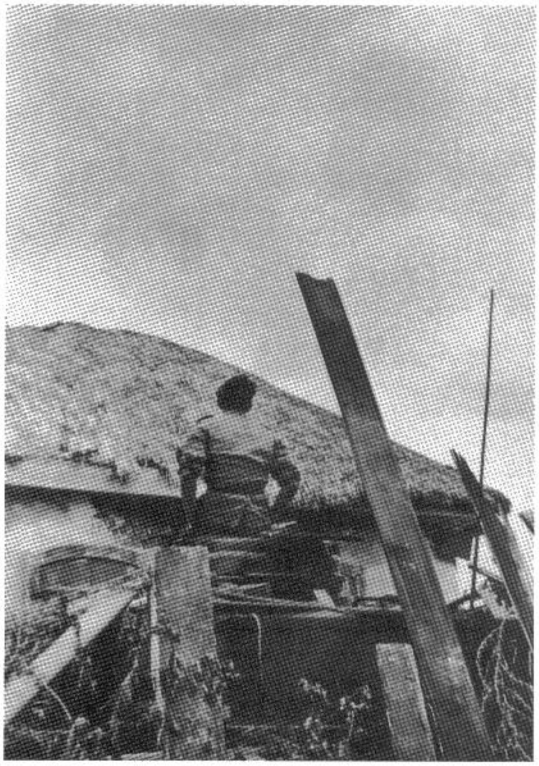
Columns of tanks and soft-skinned vehicles march across the open steppe in the direction of the enemy under the protection of Stuka dive bombers in July, 1943. A Panzer-Division consisting of up to 15,000 men, 300 armored vehicles and over 1,500 soft-skinned vehicles, required several hundred tons of supplies, fuel and ammunition each day to sustain itself, even more during periods of heavy action. It required the efforts of a highly experienced and efficient staff to coordinate their daily needs keep them supplied.



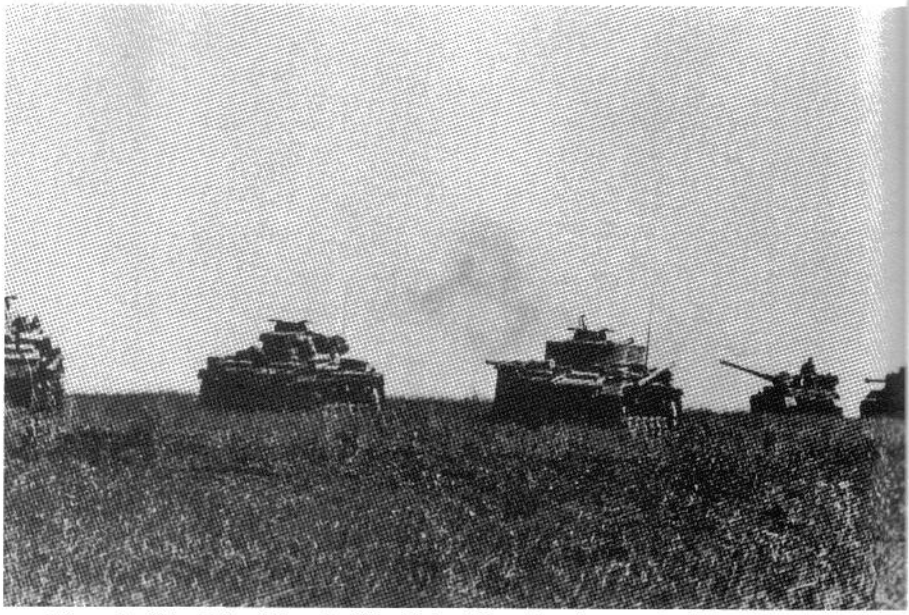
A Feisler Storch reconnaissance aircraft flies over a German transport column, the life line of the Panzer-Divisions, which includes a Ford V3000S 3-ton lorry and an Opel Blitz signals truck. The early style tactical sign for a staff company appears on the left mudguard of the Ford.



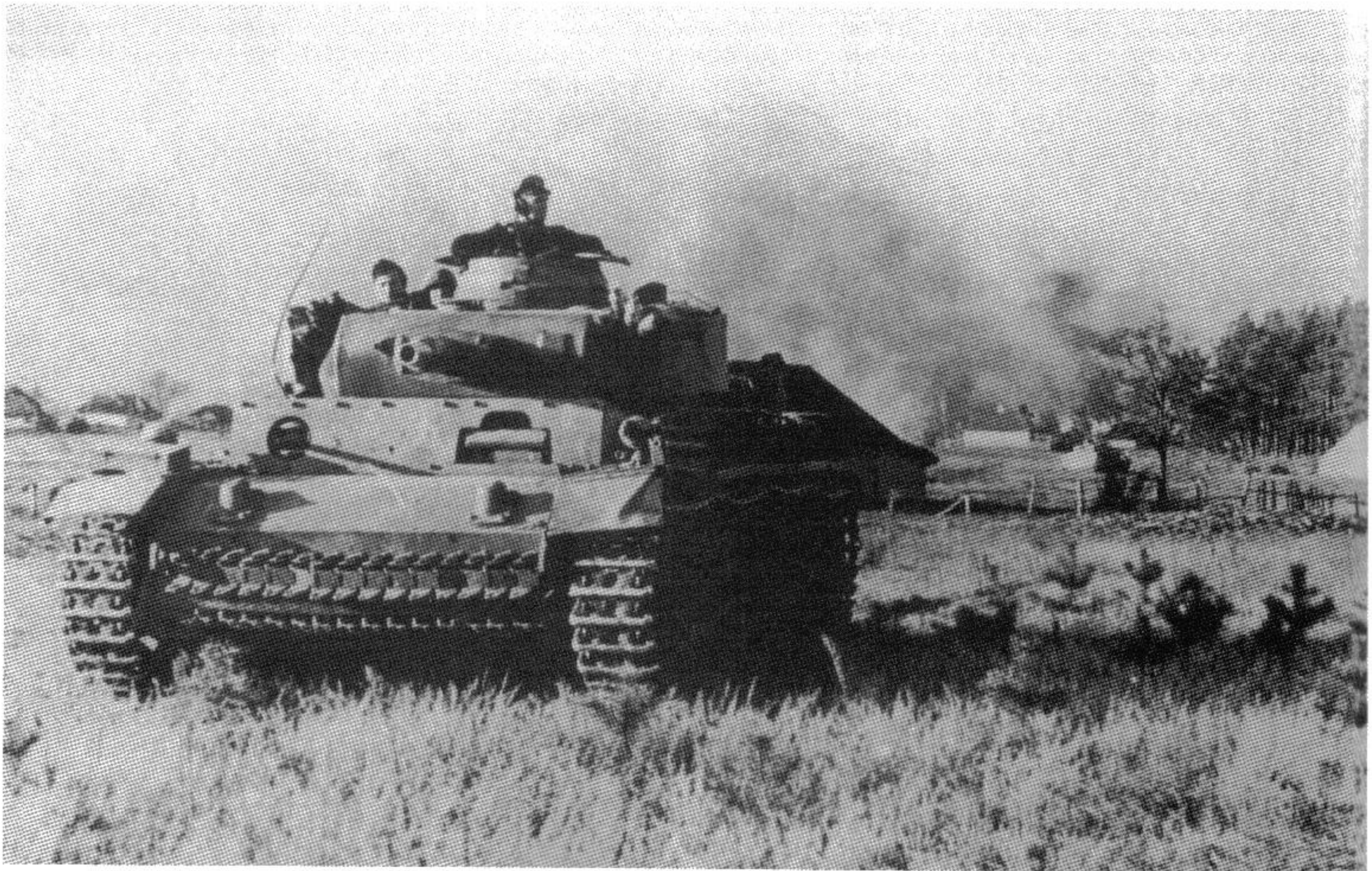
A StuG.III Ausf.G of StuG.Abt.904 in the area of Kromy, south of Orel, in July 1943. It carries the additional 30mm armor plates bolted to the front of the hull to increase its resistance to Russian anti-tank rounds. In February 1943, manufacturers were ordered to increase the frontal armor to 80mm, but vehicles with the 30mm bolt on armor continued to be produced until October when stocks had been used up. Schürzen anti-tank rifle armor plates began to be retro-fitted to Sturmgeschütz in the field in June 1943. Of special interest is the very light color of camouflage sprayed lines over, what should be, a sand yellow base, although it is possible the base color may be dark gray.



The commander of a well camouflaged Pz.Kpfw.III Ausf.M watches puffs of anti-aircraft fire aimed at a Soviet aircraft over a Russian village in late July, 1943. It has a three digit stenciled white outline tactical number, possibly '702', painted on the side and rear of the turret schürzen.



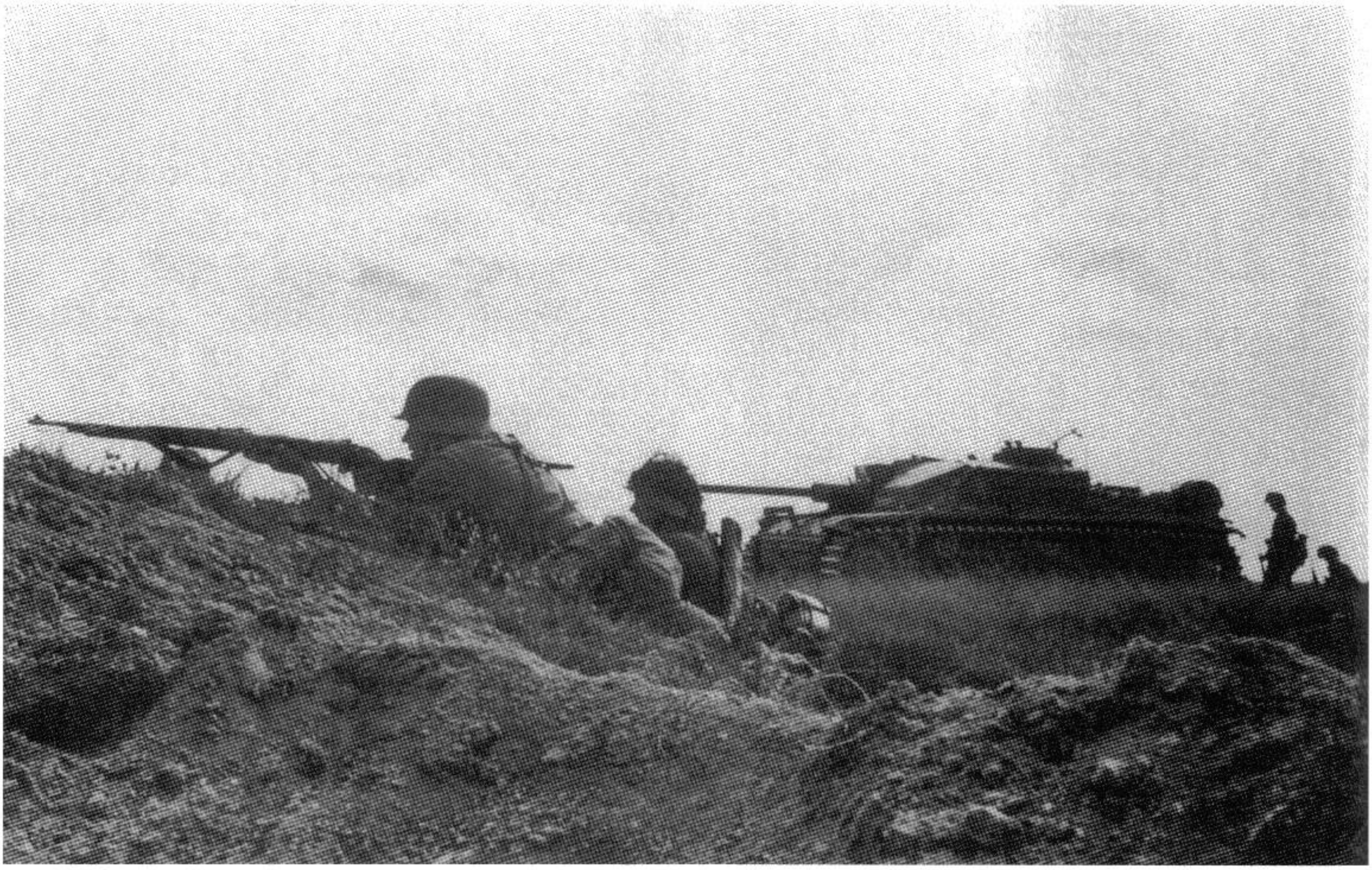
Three Pz.Kpfw.III Ausf.M, a Pz.Kpfw.IV Ausf.G or H and a new Pz.Kpfw.V Panther Ausf.D taken during the fighting around Kursk in July 1943. Only one of the Pz.Kpfw.III is fitted with the new schürzen armor plates which had begun to be installed in the spring of that year, all of which have been lost on the right side.



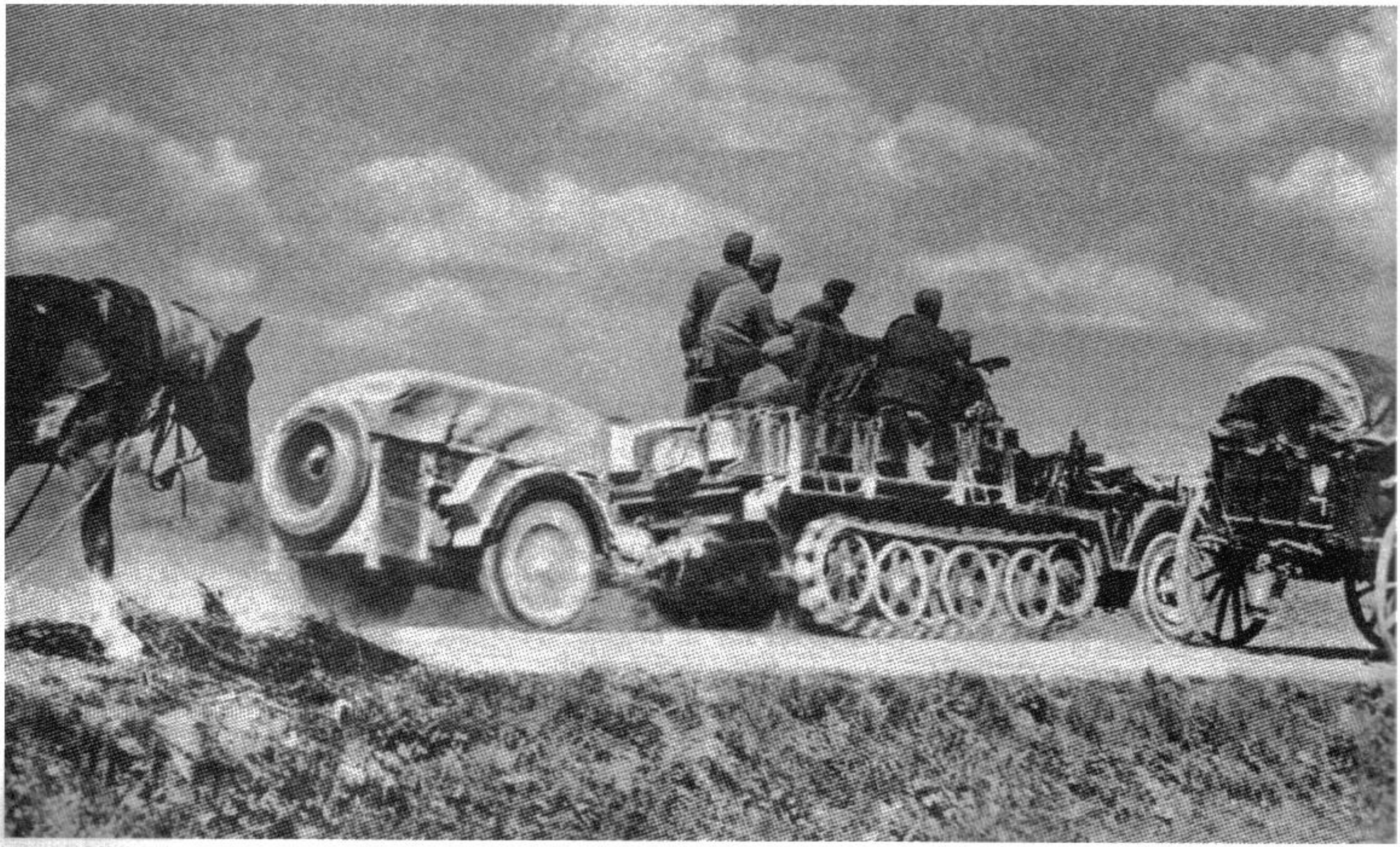
A Pz.Kpfw.III Ausf.N, probably from the Nachrichtung Zug of III./Pz.Rgt.11 during Operation 'Citadel' in July 1943. The temporary Kursk divisional marking for 6.Panzer-Division, a white horizontal bar with two vertical bars, the right one shorter than the left, can be faintly seen to the left of the driver's visor. On the right can be seen the white 'Op' marking for the new commander of Pz.Rgt.11, Oberst Herman von Oppeln-Bronikowski, who took over command from Oberst Walter von Huenersdorff after he was promoted to command the division on February 7, 1943.

Operation 'Citadel' was the first major action for the Wespe self-propelled gun, armed with the 10.5cm leFH18/2 light field howitzer. In 1943, one Battalion of the Panzer-Artillerie-Regiment, usually I.Abteilung, was reorganized into a self-propelled unit with two 6 gun batteries of Wespe and one 6 gun battery of Hummel self-propelled guns. Here, we see one of these guns firing on enemy positions in July 1943.

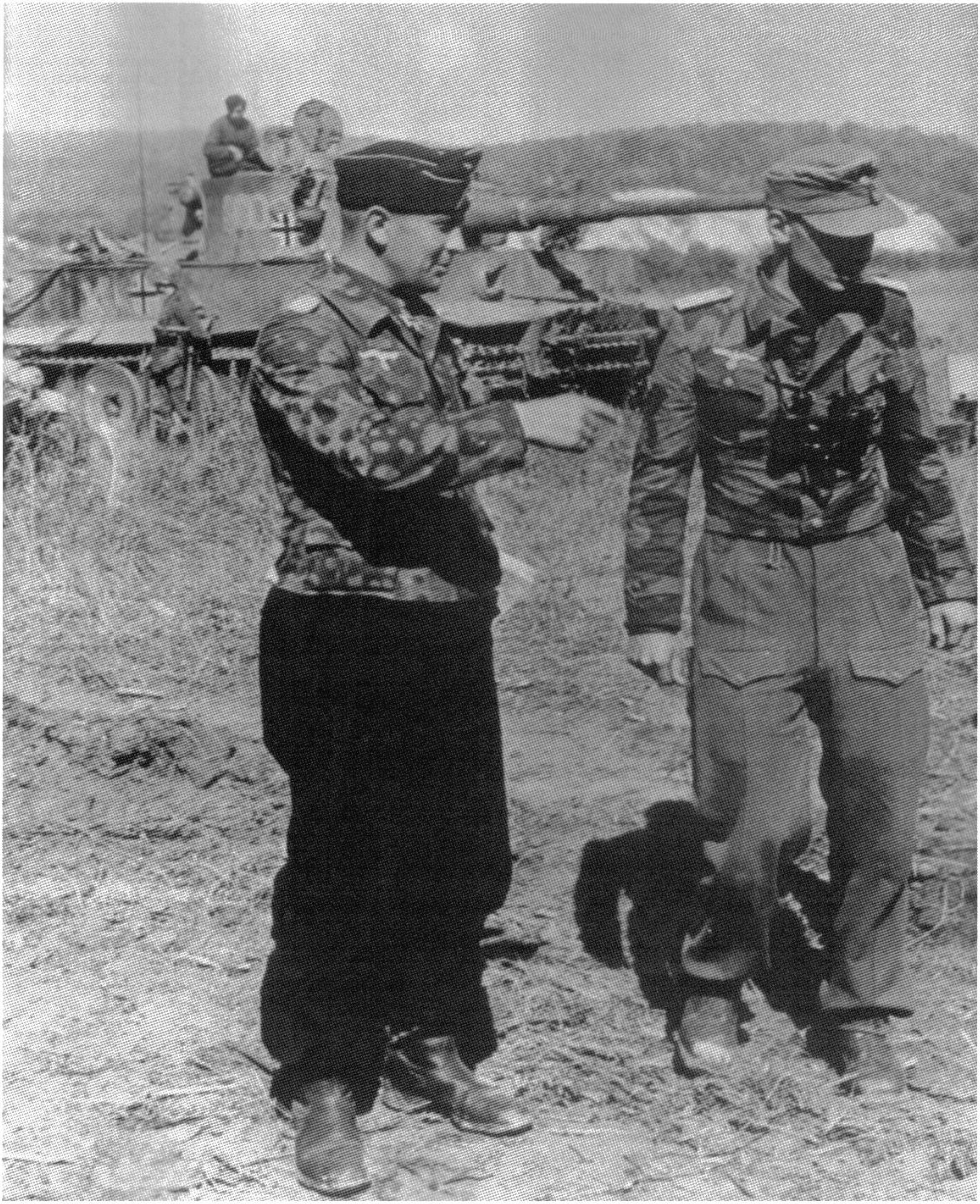
The high profile of the Wespe made it difficult to conceal and despite being well camouflaged in this field of sunflowers, it would be easily identifiable to enemy observers. In order to reduce the firing stress on the Pz.Kpfw.II chassis, a large muzzle brake was installed.



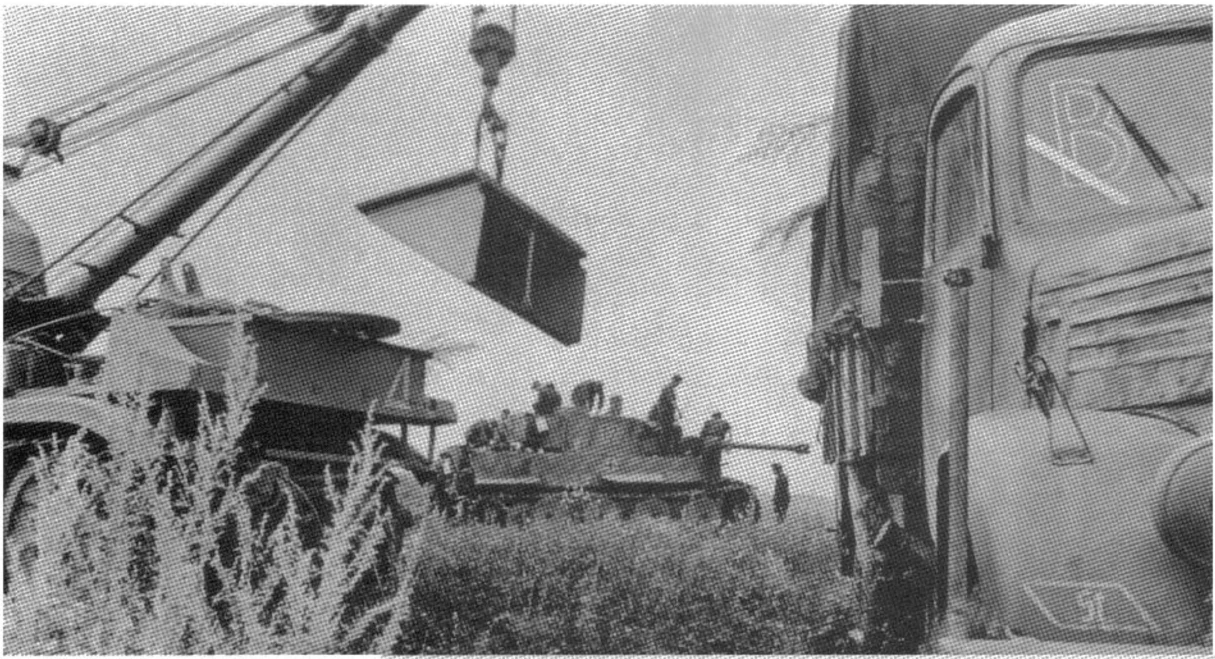
A StuG.III Ausf.G supporting an infantry assault on an enemy position, August 1943. In the spring of 1943, several Panzer and Panzer-Grenadier-Divisions received Sturmgeschütz in their Panzer Abteilungen in order to increase their operational strength. The authorized strength was four companies of 22 StuG.III in the III.Abteilung of a Panzer-Division and three companies of 14 Stug.III in a Panzer-Grenadier-Division.

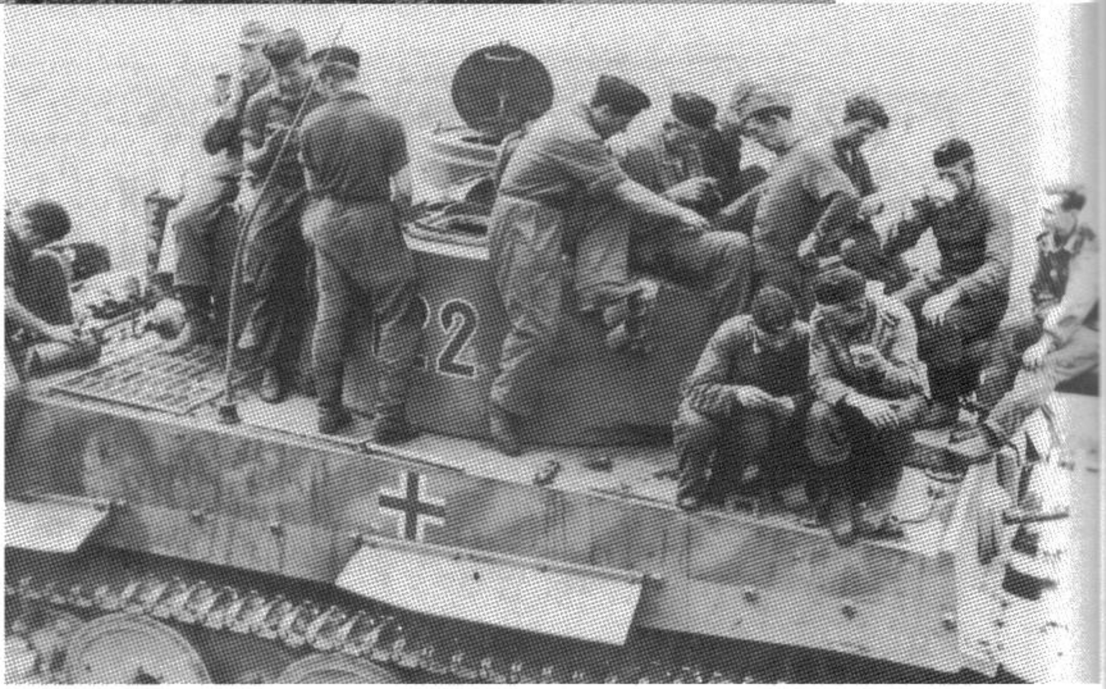


An Sd.Kfz.10/4 armed with a 2cm FlaK30 or 38 anti-aircraft gun passes by horse drawn transport in August 1943. Even though highly mechanized, the German Army relied heavily on horses throughout the war. Note how light the dust covered lower parts of the vehicle are.

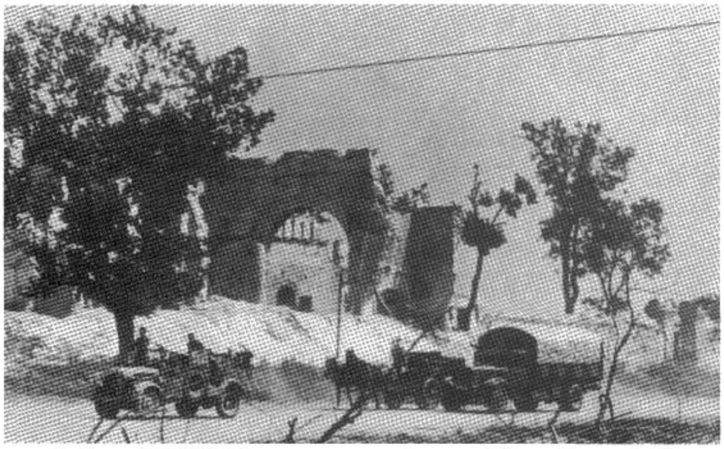


Oberstleutnant Adalbert Schultz, commander of Pz.Rgt.25 of 7.Panzer-Division, in conference with other staff officers during exercises conducted with 3./s.Pz.Abt.503, in June 1943. In the background is Tiger '300', the company commander's vehicle. Against the wishes of the commander of s.Pz.Abt.503, each of its companies was subordinated to a Panzer-Division for Operation 'Citadel', and so they did not take part in the battle as a unit. Of special interest is Oberstleutnant Schultz' specially tailored uniform tunic made from Waffen-SS oakleaf pattern camouflage cloth. It is cut in the normal tunic style with a shortened skirt and pockets. The officer with him is also wearing a non-standard issue tunic in the Army style splinter camouflage cloth with no skirt at all. His trousers are also non-regulation of unknown origin.





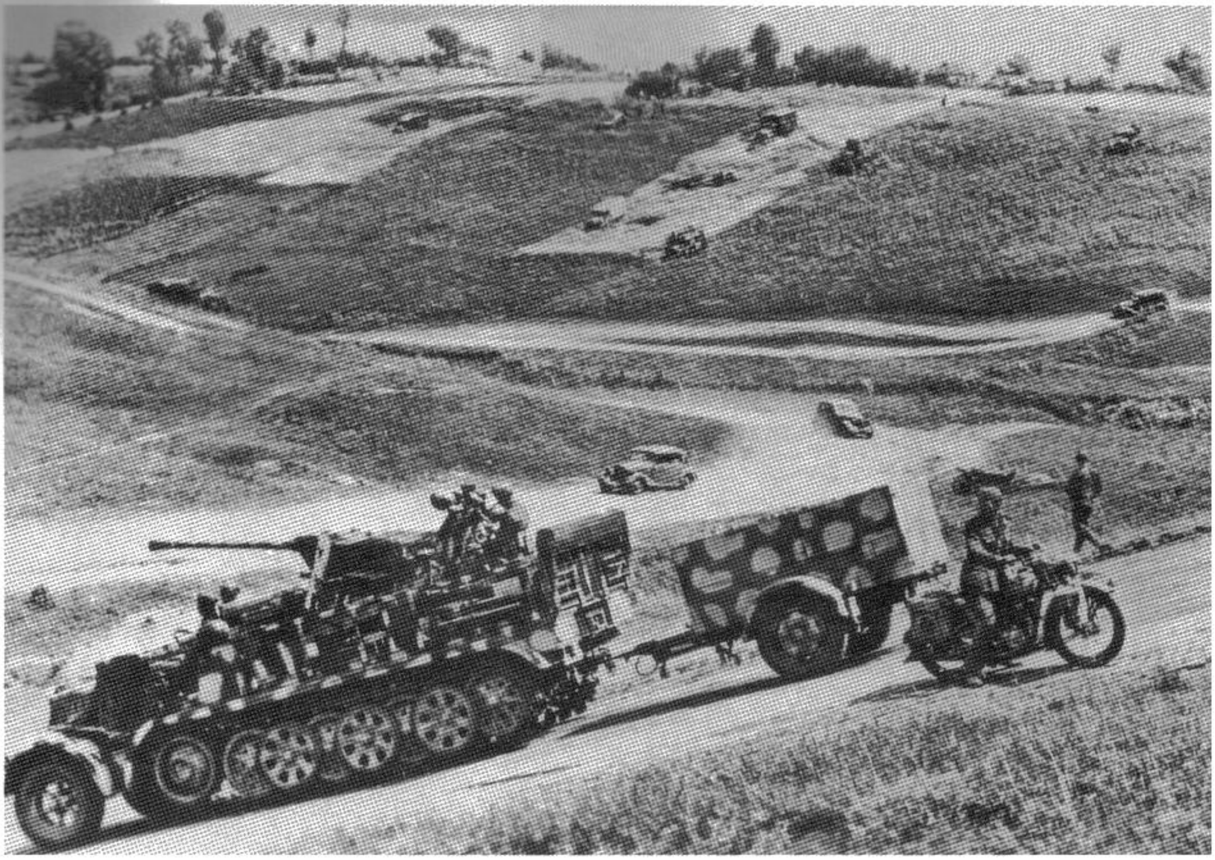
Two photographs of Tiger '122' from s.Pz.Abt.503 in the middle of August 1943. In the lower photo, the crew and mechanics are taking a break. The tank displays many signs of combat it has seen; missing mudguards and tools, a missing smoke candle discharger, a damaged roadwheel and a bent antenna. The missing mudguards also provide some insight on how the camouflage paint has been applied.

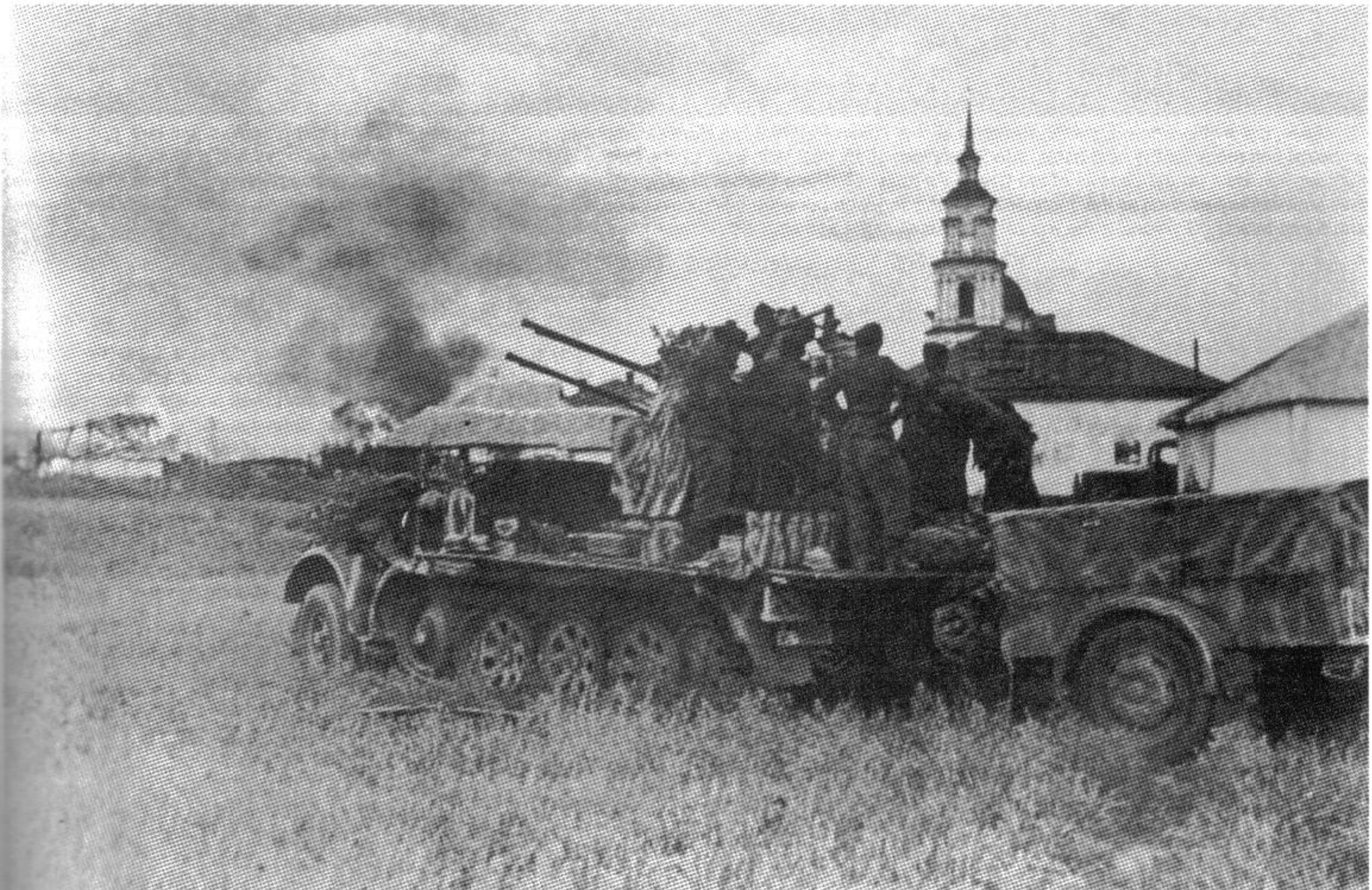


A Steyr 1500A/01 heavy cross-country car followed by a 4 1/2-ton Citroen transport truck, travel through a shattered landscape in the Bjelgorod area, August 1943. The car has been camouflaged with dark criss-cross lines painted on the dark sand base. The light colored canvas cover on the truck has been similarly treated while the truck itself remains in its original dark gray color.

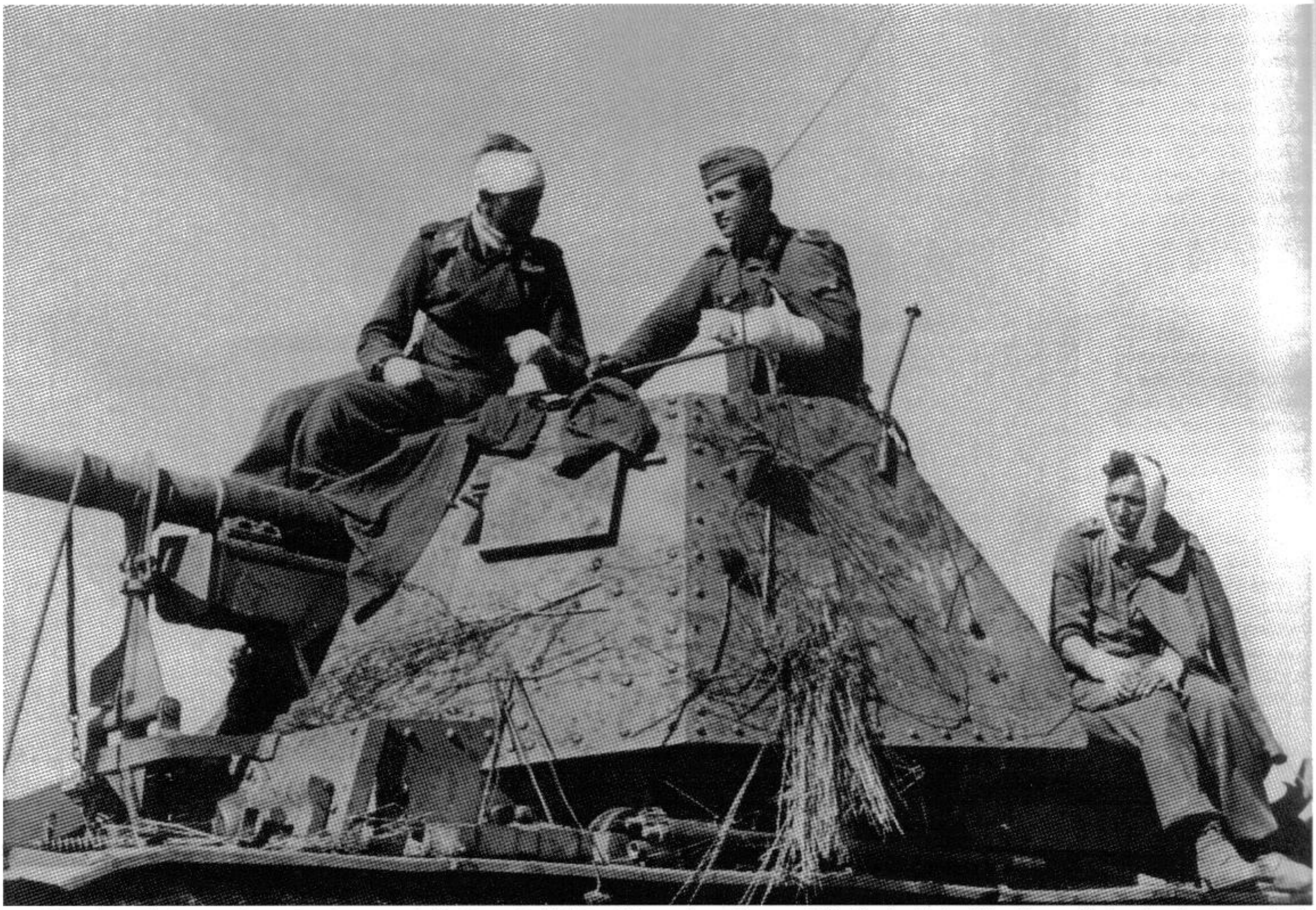
Kradschützen troops on BMW R12 combinations swing off a country road into a field in August 1943. The sidecar on the machine closest to the camera is fitted with an MG34 mount and appears to have suffered some damage to its front end. There is an illegible emblem painted on the front of each sidecar.

The Sd.Kfz.7/2 self-propelled anti-aircraft gun was a relatively new weapon on the battlefield at this time. Armed with the 3.7cm FlaK36 anti-aircraft gun, it began to replace the Sd.Kfz.6/2 when that vehicle was phased out of service in 1943. This one is being used in the Bjelgorod area in August 1943 and has an interesting camouflage scheme of large, dark sand spots painted on the vehicle including the gun shield and ammunition trailer over their original dark gray color. Only 123 of these vehicles were produced. On the hillside in the background, several vehicles can be clearly seen despite the effort made to camouflage them with foliage.

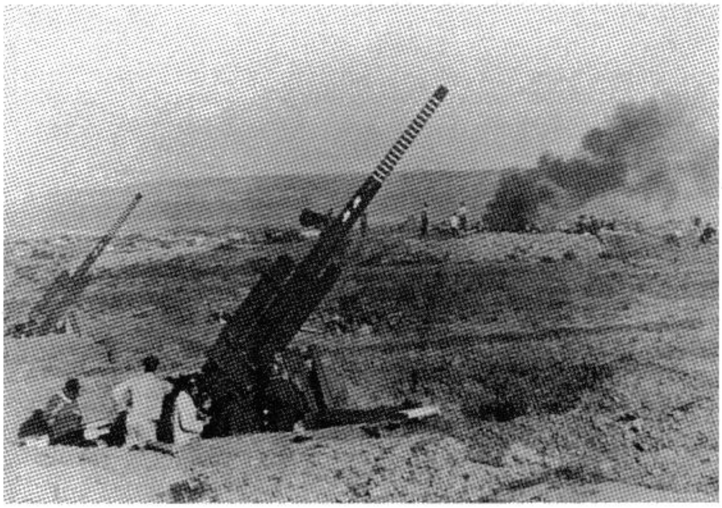




An Sd.Kfz.7/1 self-propelled anti-aircraft gun armed with the 2cm Flakvierling 38 engages Soviet aircraft in August 1943. It was employed in greater numbers than the Sd.Kfz.7/2 with 319 vehicles produced from late 1941 to 1944. In contrast to the vehicle in the above photo, this one has a more subtle camouflage scheme of dark sand wavy lines applied over the whole vehicle and ammunition trailer. The 'WL' designation can be seen on the license plate on the rear of the half-track, although the rest of the numbers are illegible.

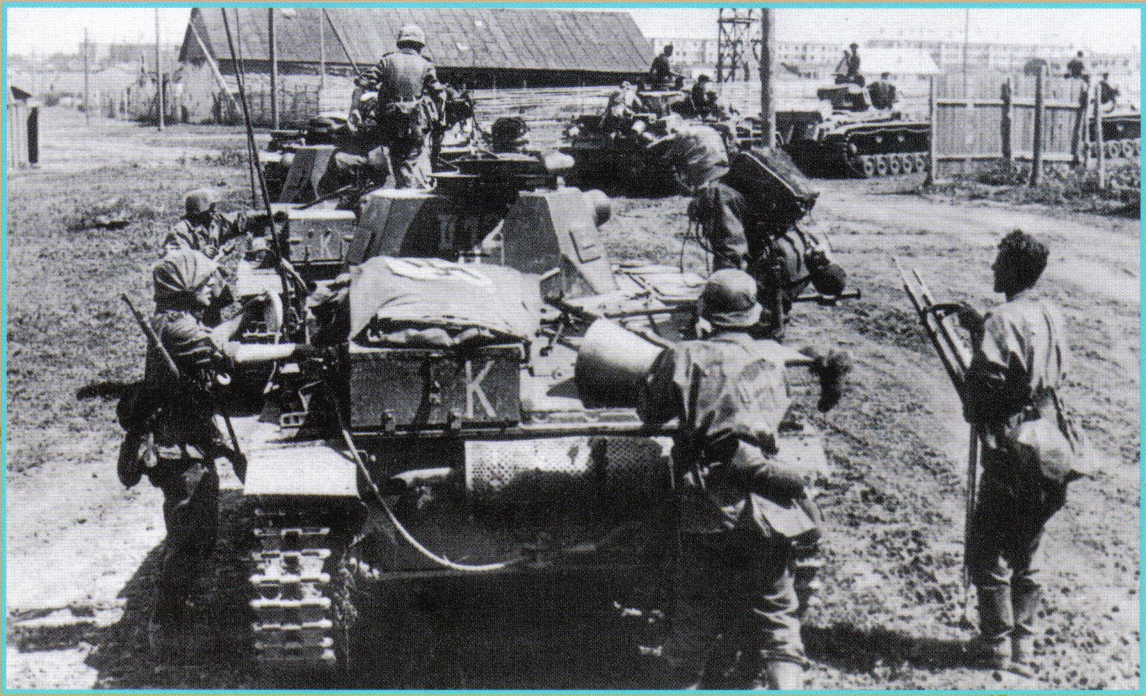


Alive, but a little worse for wear, the crew of this 7.5cm PaK40/3 auf Panzerkampfwagen 38(t) Marder III Ausf.H self-propelled anti-tank gun are back on board and ready for the next battle, late September 1943. Just visible under the foliage is a white outline black national cross and a white two digit tactical number '12'. Built on the chassis of the Czech Pz.Kpfw. 38(t), the Marder III series of self-propelled anti-tank guns were an interim solution while purpose built tank destroyers such as the Jagdpanzer IV and Jagdpanther were being developed. They served with the Panzer-Divisions, Panzer-Grenadier-Divisions and some Infantry Divisions in the Panzerjäger Abteilungen and also with independent Panzerjäger units.



A highly successful 8.8cm FlaK18 battery during a lull in the action in August 1943. There were never enough self-propelled anti-aircraft mounts produced to keep up with demand and the towed anti-aircraft gun batteries continued to form the major anti-aircraft defenses of the Wehrmacht. Still in their original dark gray color, this pair of guns displays 16 kill rings on their barrels along with silhouettes of two ships sunk. It is likely that these represent shared kills rather than individual scores for each gun crew.

A Feldgendarme Unteroffizier on a BMW R61 motorcycle keeps a watchful eye on the long line of traffic approaching a Russian town in October 1943. The license number on the motorcycle is 'WH-1079536' but the paint on the first two letters is partially worn off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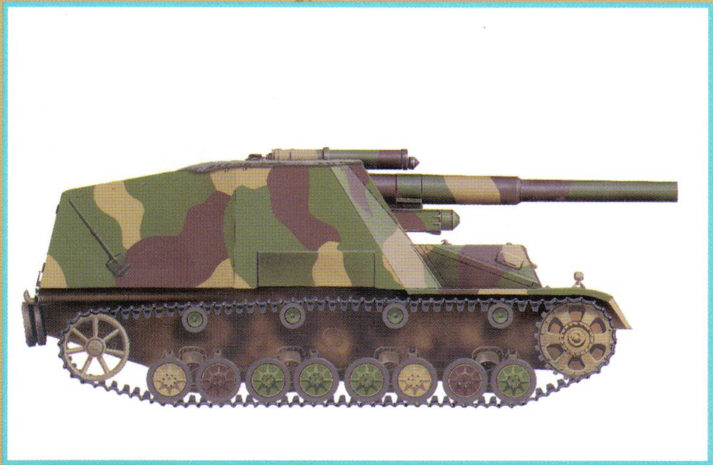
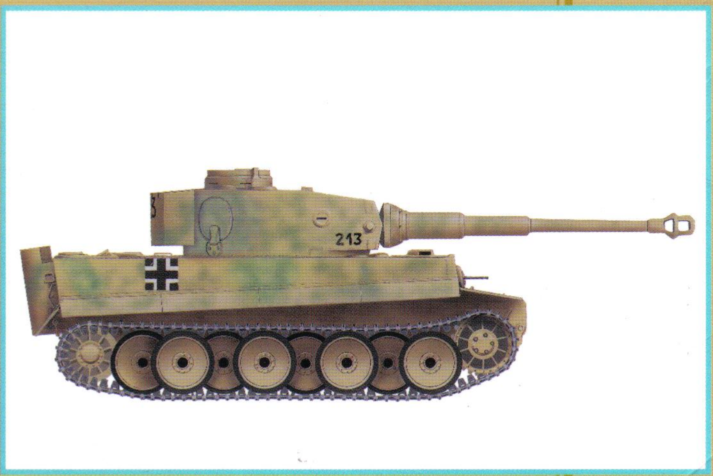


324


213